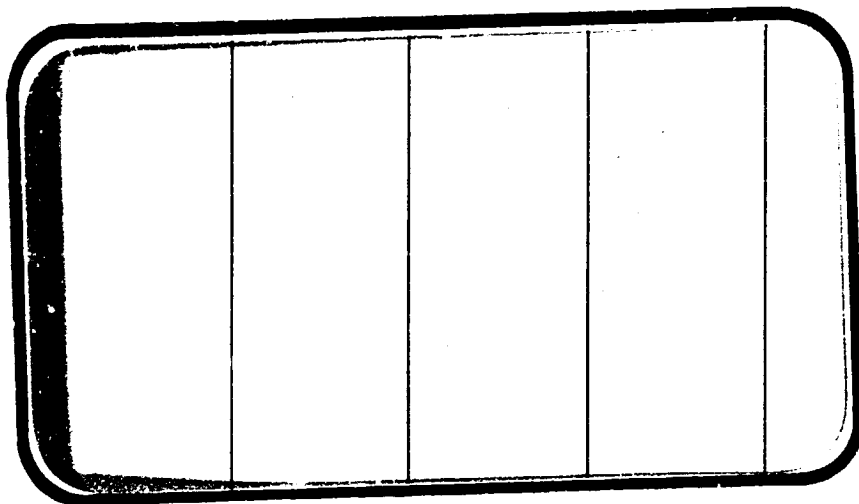


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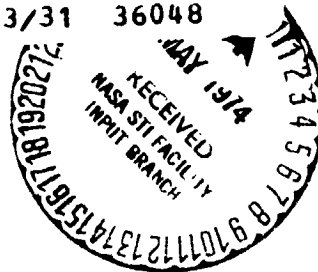


(NASA-CR-134079) RESULTS OF THE 0.015
SCALE SPACE SHUTTLE VEHICLE ORBITER TEST
(OA17) IN THE NASA LOW TURBULENCE
PRESSURE TUNNEL (Chrysler Corp.) 862 p
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36048



SPACE SHUTTLE

AEROTHERMODYNAMIC DATA REPORT

JOHNSON SPACE CENTER

HOUSTON, TEXAS

DATA Management services

SPACE DIVISION



CHRYSLER
CORPORATION

February, 1974

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NASA CR-134,079

RESULTS OF THE 0.015 SCALE SPACE SHUTTLE
VEHICLE ORBITER TEST (OA17) IN THE NASA
LOW TURBULENCE PRESSURE TUNNEL

By

M. D. Milam/M. T. Petrozzi
Rockwell International

Prepared under NASA Contract Number NAS9-13247

By

Data Management Services
Chrysler Corporation Space Division
New Orleans, La. 70189

for

Engineering Analysis Division

Johnson Space Center
National Aeronautics and Space Administration
Houston, Texas

WIND TUNNEL TEST SPECIFICS:

Test Number: LTPT 138
NASA Series No.: OA17
Test Date: 18 June - 6 July, 1973
Model Number: 42-0

FACILITY COORDINATOR:

David R. Stone
Langley Research Center
SSD, Vehicle Analysis Branch
Bldg. 1247-B, Room 120B
Mail Stop 163-A
Langley Station
Hampton, Virginia 23365

Phone: (804) 827-2483


PROJECT ENGINEERS:

M. D. Milam/M. T. Petrozzi
Rockwell International Space Division
12214 Lakewood Blvd.
Mail Code AC-07
Downey, California 90241

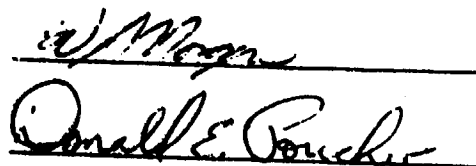
Phone: (213) 922-4185

DATA MANAGEMENT SERVICES:

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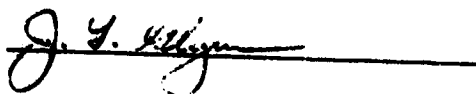
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Liaison Operations

D. E. Poucher
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This document has been reviewed and is approved for release.

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RESULTS OF THE 0.015 SCALE SPACE SHUTTLE
VEHICLE ORBITER TEST (OA17) IN THE NASA
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ABSTRACT

Experimental aerodynamic investigations were conducted on a 0.015 scale model of the Space Shuttle Orbiter in the NASA/LRC Low Turbulence Pressure Tunnel during a test period from 6/18/73 to 7/6/73.

Six component static aerodynamic force and moment data were recorded while the model was pitched from -2° to $+26^\circ$ angle of attack. The yaw angles during these pitch sweeps were 0° , -5° , and $7\frac{1}{2}^\circ$. Base, sting cavity, vertical tail, wing trailing edge, and elevon pressures, as well as elevon and rudder hinge moment data were also obtained.

The test were conducted at a nominal Mach number of 0.25. The Reynolds number was varied throughout the test program from 2.5×10^6 to 4.7×10^6 to 10.0×10^6 to 12.5×10^6 .

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TABLE OF CONTENTS

	Page
ABSTRACT	iii
INDEX OF MODEL FIGURES	2
INDEX OF DATA FIGURES	3
NOMENCLATURE	8
CONFIGURATIONS INVESTIGATED	13
TEST FACILITY DESCRIPTION	14
DATA REDUCTION	15
TABLES	
I TEST CONDITIONS	16
II DATA SET COLLATIONS	17
III MODEL COMPONENT DIMENSIONAL DATA	20
FIGURES	
MODEL	38
DATA	45
APPENDIX - TABULATED SOURCE DATA	

INDEX OF MODEL FIGURES

<u>FIGURE</u>	<u>TITLE</u>	<u>PAGE</u>
1	Axis Systems.....	38
2	Model Sketches.	
	a. 89B Model Configuration.....	39
	b. 139B Model Configuration.....	40
	c. Nose Landing Gear - G_1	41
	d. Main Landing Gear - G_1	42
3	Instrumentation Sketches.	
	a. Model Base Pressure Instrumentation.....	43
	b. Model Elevon Instrumentation.....	44

INDEX OF DATA FIGURES

FIGURE	TITLE	SCHEDULE OF COEFFICIENTS PLOTTED	CONDITIONS VARYING	PAGES
Fig. 4	139B Orbiter Total Vehicle Longitudinal Characteristics	(A)	RN/L BDFLAP SPDERK	1-26
Fig. 5	139B Orbiter Elevon Deflection Effects	(A)	RN/L ELEVTR	27-52
Fig. 6	139B Orbiter Elevon Deflection Incremental Effects	(B)	RN/L DELVON ALPHA	53-82
Fig. 7	139B Orbiter Speed Brake Deflection Effects	(A)	RN/L SPDERK	83-134
Fig. 8	139B Orbiter Speed Brake Deflection Incremental Effects	(C)	RN/L	135-150
Fig. 9	139B Orbiter Body Flap Deflection Effects	(A)	RN/L BDFLAP	151-176
Fig. 10	139B Orbiter Body Flap Deflection Incremental Effects	(D)	RN/L BDFLAP ALPHA	177-206
Fig. 11	139B Orbiter Lateral Directional Yaw Polar	(E)	RN/L BETA	207-218
Fig. 12	139B Orbiter Lateral Directional Derivatives	(F)	RN/L	219-224
Fig. 13	139B Orbiter (Mod Nose) Total Vehicle Longitudinal Characteristics	(A)	RN/L BDFLAP SPDERK	225-250

INDEX OF DATA FIGURES (Continued)

FIGURE	TITLE	SCHEDULE OF COEFFICIENTS PLOTTED		CONDITIONS VARYING	PAGES
		(A)	(B)		
Fig. 14	139B Orbiter (Mod Nose) Elevon Deflection Effects	(A)		RN/L ELEVTR	251-276
Fig. 15	139B Orbiter (Mod Nose) Elevon Deflection Incremental Effects	(B)		RN/L DELVON ALPHA	277-306
Fig. 16	139B Orbiter (Mod Nose) Speed Brake Deflection Effects	(A)		RN/L SPDBRK	307-358
Fig. 17	139B Orbiter (Mod Nose) Speed Brake Deflection Incremental Effects	(C)		RN/L	359-374
Fig. 18	139B Orbiter (Mod Nose) Lateral Directional Yaw Polar	(E)		RN/L BETA	375-380
Fig. 19	139B Orbiter (Mod Nose) Lateral Directional Derivatives	(F)		RN/L	381-386
Fig. 20	139B Orbiter (Mod Nose) Aileron Deflection Effects	(E)		RN/L AILRON ELEVTR	387-398
Fig. 21	139B Orbiter (Mod Nose) Aileron Effectiveness Derivatives	(G)		RN/L	399-410
Fig. 22	089B Orbiter Total Vehicle Longitudinal Characteristics	(A)		RN/L SPDBRK LDG. GEAR	411-419
Fig. 23	089B Orbiter Elevon Deflection Effects (Negative Deflections)	(A)		RN/L ELEVTR	450-475
Fig. 24	089B Orbiter Elevon Deflection Effects (Positive Deflections)	(A)		RN/L ELEVTR	476-501

INDEX OF DATA FIGURES (Continued)

FIGURE	TITLE	SCHEDULE OF		CONDITIONS VARYING	PAGES
		COEFFICIENTS PLOTTED			
Fig. 25	O89B Orbiter Elevon Deflection Incremental Effects	(E)		RN/L DELVON ALPHA	502-531
Fig. 26	O89B Orbiter Speed Brake Deflection Effects	(A)		RN/L SPDBRK	532-583
Fig. 27	O89B Orbiter Speed Brake Deflection Incremental Effects	(H)		RN/L DSPBRK ALPHA	584-629
Fig. 28	O89B Orbiter Lateral Directional Yaw Polar	(E)		RN/L BETA	630-641
Fig. 29	O89B Orbiter Lateral Directional Derivatives	(F)		RN/L LDG. GEAR	642-653
Fig. 30	O89B Orbiter Aileron Deflection Effects	(E)		RN/L AILRON ELEVTR	654-659
Fig. 31	O89B Orbiter Aileron Effectiveness Derivatives	(G)		RN/L DAILRON ELEVON	660-665
Fig. 32	O89B Orbiter Rudder Deflection Effects	(E)		RN/L RUDDER	666-671
Fig. 33	O89B Orbiter Rudder Effectiveness Derivatives	(I)		RN/L DRUDER	672-677
Fig. 34	O89B Orbiter Combined Speed Brake and Rudder Deflection Effects	(E)		RN/L SPDBRK	678-683

FIGURE	TITLE	SCHEDULE OF COEFFICIENTS		CONDITIONS VARYING	PAGES
		PLOTTED			
Fig. 35	O89B Orbiter Elevon Hinge Moments (Negative Deflections)	(J)		RN/L ELEVTR	684-685
Fig. 36	O89B Orbiter Elevon Hinge Moments (Positive Deflections)	(J)		RN/L ELEVTR	686-687
Fig. 37	O89B Orbiter Elevon Hinge Moments Variations with Elevon	(K)		RN/L ALPHA	688-689
Fig. 38	O89B Orbiter Elevon Hinge Moment Increments	(L)		RN/L DELTON	690-691
Fig. 39	O89B Orbiter Rudder Hinge Moment with Deflections	(M)		RN/L RUDDER ALPHA	692-695
Fig. 40	O89B Orbiter Rudder Hinge Moment Variations with Speed Brake Deflection	(M)		RN/L SPDERK	696-697
Fig. 41	O89B Orbiter Rudder Hinge Moment Deflection Derivative	(N)		RN/L DRUDER	698-699
Fig. 42	O89B Orbiter Rudder Hinge Moment with Sideslip	(M)		RN/L BETA	700-701
Fig. 43	O89B Orbiter Rudder Hinge Moment Sideslip Derivative	(O)		RN/L	702-703

INDEX OF DATA FIGURES (Concluded)

SCHEDULE OF COEFFICIENTS PLOTTED:

- (A) CL, CD, CDF, CAF, JA, CN, CLMFWD, CLMAFT, L/D, XCP/L, CAB versus ALPHA
CL versus CLMFWD
CN versus CLMAFT
CL versus CD
- (B) DCL, DCD, DCDF, DCN, DCA, DCAF, DCLMFD, DCLMAT, DCAB versus ALPHA
DCL, DCD, DCN, DCA, DCAF, DCLMFD, DCLMAT versus DELVON
- (C) DCL, DCD, DCDF, DCN, DCA, DCAF, DCLMFD, DCLMAT, DCAB versus ALPHA
- (D) DCL, DCD, DCDF, DCN, DCA, DCAF, DCLMFD, DCLMAT, DCAB versus ALPHA
DCL, DCD, DCN, DCA, DCAF, DCLMFD, DCLMAT versus DBFLAP
- (E) CYN, CBL, CY versus ALPHA
- (F) DCYNDB, DCBLDB, DCY/DB versus ALPHA
- (G) DCYNDA, DCBLDA, DCY/DA versus ALPHA
- (H) DCL, DCD, DCDF, DCN, DCA, DCAF, DCLMFD, DCLMAT, DCAB versus ALPHA
DCL, DCD, DCN, DCA, DCAF, DCLMFD, DCLMAT versus DSPBRK
- (I) DCYNDR, DCBLDR, DCY/DR versus ALPHA
- (J) CHET versus ALPHA
- (K) CHET versus ELEVON
- (L) DCHET versus ALPHA
- (M) CHR versus ALPHA, CHR versus RUDDER
- (N) CHR versus ALPHA
- (O) DCHRDR versus ALPHA
- (P) DCHRDB versus ALPHA

NOMENCLATURE
General

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
a		speed of sound; m/sec, ft/sec
C_p	CP	pressure coefficient; $(p_1 - p_\infty)/q$
M	MACH	Mach number; V/a
p		pressure; N/m^2 , psf
q	$Q(NSM)$ $Q(PSF)$	dynamic pressure; $1/2\rho V^2$, N/m^2 , psf
RN/L	RN/L	unit Reynolds number; per m, per ft
V		velocity; m/sec, ft/sec
α	ALPHA	angle of attack, degrees
β	BETA	angle of sideslip, degrees
ψ	PSI	angle of yaw, degrees
ϕ	PHI	angle of roll, degrees
ρ		mass density; kg/m^3 , slugs/ft ³

Reference & C.G. Definitions

A_b		base area; m^2 , ft^2
b	BREF	wing span or reference span; m, ft
c.g.		center of gravity
$\frac{l}{c}_{REF}$	LREF	reference length or wing mean aerodynamic chord; m, ft
S	SREF	wing area or reference area; m^2 , ft^2
	MRP	moment reference point
	XMRP	moment reference point on X axis
	YMRP	moment reference point on Y axis
	ZMRP	moment reference point on Z axis

SUBSCRIPTS

b	base
l	local
s	static conditions
t	total conditions
∞	free stream

NOMENCLATURE (Continued)

Body-Axis System

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
C_N	CN	normal-force coefficient; $\frac{\text{normal force}}{qS}$
C_A	CA	axial-force coefficient; $\frac{\text{axial force}}{qS}$
C_Y	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
C_{A_b}	CAB	base-force coefficient; $\frac{\text{base force}}{qS}$ $-A_b(p_b - p_\infty)/qS$
C_{A_f}	CAF	forebody axial force coefficient, $C_A - C_{A_b}$
C_m	CIM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS l_{REF}}$
C_n	CYN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qS b}$
C_l	CBL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qS b}$

Stability-Axis System

C_L	CL	lift coefficient; $\frac{\text{lift}}{qS}$
C_D	CD	drag coefficient; $\frac{\text{drag}}{qS}$
C_{D_b}	CDB	base-drag coefficient; $\frac{\text{base drag}}{qS}$
C_{D_f}	CDF	forebody drag coefficient; $C_D - C_{D_b}$
C_Y	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
C_m	CIM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS l_{REF}}$
C_n	CLN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qS b}$
C_l	CBL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qS b}$
L/D	L/D	lift-to-drag ratio; C_L/C_D
L/D_f	L/DF	lift to forebody drag ratio; C_L/C_{D_f}

NOMENCLATURE (Continued)

ADDITIONS TO STANDARD LIST

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
X_{CP}/l_B	XCP/L	longitudinal position of the normal force center of pressure, based on body length, l_B $X_{CP}/l_B = X_{MRP}/l_B - (C_m/C_N) (l_{ref}/l_B)$
$C_{m_{aft}}$	CLMAFT	pitching moment coefficient about aft C.G. (67% l_B for config. 139B and 68% l_B for config. 89B)
$C_{m_{fwd}}$	CLMFWD	pitching moment coefficient about forward C.G. (65% l_B for config. 139B and 66% l_B for config. 89B)
ΔC_L	DCL	differential lift coefficient.
ΔC_A	DCA	differential axial force coefficient.
ΔC_N	DCN	differential normal force coefficient.
ΔC_{Ab}	DCAB	differential base-force coefficient.
ΔC_D	DCD	differential drag coefficient.
ΔC_{D_f}	DCDF	differential forebody drag coefficient.
ΔC_{A_f}	DCAF	differential forebody axial force coefficient.
$\Delta C_{m_{aft}}$	DCIMAT	differential pitching moment coefficient about aft C.G.
$\Delta C_{m_{fwd}}$	DCIMFD	differential pitching moment coefficient about forward C.G.
$C_{Y\beta}$	DCY/DB	side force coefficient derivative with sideslip angle.
$C_{n\beta}$	DCYNDB	yawing moment coefficient derivative with sideslip angle.
$C_{l\beta}$	DCILDB	rolling moment coefficient derivative with sideslip angle.

NOMENCLATURE (Continued)

ADDITIONS TO STANDARD LIST

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
$C_{y\delta_a}$	DCY/DA	sideforce coefficient derivative with aileron deflection.
$C_{n\delta_a}$	DCYNDA	yawing moment coefficient derivative with aileron deflection.
$C_{l\delta_a}$	DCBLDA	rolling moment coefficient derivative with aileron deflection.
$C_{y\delta_r}$	DCY/DR	side force coefficient derivative with rudder deflection.
$C_{n\delta_r}$	DCYNDR	yawing moment coefficient derivative with rudder deflection.
$C_{l\delta_r}$	DCBLDR	rolling moment coefficient derivative with rudder deflection.
$(C_h)_e$	CHET	elevon hinge moment coefficient.
$(C_h)_r$	CHR	rudder hinge moment coefficient.
$(\Delta C_h)_e$	DCHET	differential elevon hinge moment coefficient.
$C_{h\delta_r}$	DCHDR	rudder hinge moment coefficient derivative with rudder deflection.
$C_{h\beta}$	DCHRDB	rudder hinge moment coefficient derivative with sideslip angle.
$\Delta\delta_e$	DELVON	differential elevon deflection.
$\Delta\delta_{BF}$	DBFLAP	differential body flap deflection.
$\Delta\delta_{SB}$	DSPERK	differential speed brake deflection.
δ_a	AILRON	aileron, total aileron deflection angle (left aileron - right aileron)/2; degrees.

NOMENCLATURE (Concluded)

ADDITIONS TO STANDARD LIST

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
δ_e	ELEVON	elevon, surface deflection angle, positive deflection, trailing edge down; degrees.
δ_r	RUDDER	rudder, surface deflection angle, positive deflection, trailing edge to the left; degrees.
δ_{e_L}	ELVN-L	left elevon, surface deflection angle, positive deflection, trailing edge down; degrees.
δ_{e_R}	ELVN-R	right elevon, surface deflection angle, positive deflection, trailing edge down; degrees.
δ_{SB}	SPDERK	speed brake, split rudder inclusive deflection angle between outer surfaces, left split rudder trailing edge left plus right split rudder trailing edge right, positive deflection; degrees.
δ_{BF}	BDFLAP	body flap, surface deflection angle, positive deflection, trailing edge down.

CONFIGURATIONS INVESTIGATED

The models used for this investigation were 0.015 scale representations of the -89B and -139B Space Shuttle Orbiter configurations. Both a basic and a modified (cambered) nose version of the 139B configuration were tested. These configurations were designated as:

- O_{89B} = B₁₀C₅D₇M₃F₄W₈₇V₅E₁₈R₅
 = 89B orbiter configuration
- O_{139B} = B₁₉C₇M₄F₅W₁₀₇V₇E₂₃R₅
 = basic 139B orbiter configuration
- O_{139EMOD} = B₂₁C₇M₄F₅W₁₀₇V₇E₂₃R₅
 = modified (nose) 139B orbiter configuration

Individual components are designated as follows:

CONFIGURATION COMPONENT		DESCRIPTION
-89B	-139B	
B ₁₀	B ₁₉	Basic Orbiter Fuselage
	B ₂₁	O _{139B} Orbiter Fuselage with cambered nose
C ₅	C ₇	Canopy
D ₇		Manipulator Arm Housing
E ₁₈	E ₂₃	Elevon
F ₄	F ₅	Body Flap
G ₁	G ₁	Landing Gear and Gear Doors
M ₃	M ₄	OMS Pods
R ₅	R ₅	Rudder
V ₅	V ₇	Vertical Tail
W ₈₇	W ₁₀₇	Wing

TEST FACILITY DESCRIPTION

The test was conducted in the Langley Low Turbulence Pressure Tunnel, which is a variable-pressure, single return facility with a closed rectangular test section that is 0.94 meter (3.00 ft.) wide and 2.290 meters (7.50 ft.) high. The tunnel can accommodate tests in air at low subsonic Mach numbers and at a Reynolds number per unit length up to about 49.2×10^6 per meter (15.0×10^6 per foot).

DATA REDUCTION

A LRC 832B six-component strain gage balance was used to measure model forces and moments.

The model was instrumented to measure nine fuselage base pressures, two rudder base pressures, two balance cavity pressures, and seven wing trailing edge pressures. The pressure tap selection for measurement was made by a Scanivalve located in the nose of the model. Figures 3a and 3b show pressure orifice and strain gage locations. Fuselage base and balance cavity pressures were integrated to compute base axial force. Wing and rudder pressures were used as an indication of buffet onset.

The model was also instrumented for rudder and elevon hinge moments. The elevon gages were mounted in the two elevon panels on the right wing.

Model data were converted to standard coefficients using the following reference constants:

	Full Scale	Model Scale
Reference area	$S_{ref} = 2690 \text{ ft}^2$	0.605 ft^2
Reference length	$l_{ref} = 1328.3 \text{ in.}$	19.925 in.
Reference span	$b_{ref} = 936.68 \text{ in.}$	14.05 in.

The moments have been reduced about a reference point located at fuselage station 1076.48 (66 percent of configuration 89B body length and 65 percent of configuration 139B body length).

TABLE I.

[illegible]

TABLE II.

TEST: LARC - LTPT 138										DATE: 7-6-73																		
DATA SET / RUN NUMBER COLLATION SUMMARY																												
DATA SET IDENTIFIER	CONFIGURATION	SCHD.										PARAMETERS/VALUES										NO. OF RUNS	REYNOLDS NUMBER X 10 ⁶					TEST RUN NUMBERS
		A		B		SEL		SER		SR		SRF		SSR		2.5	4.7	10.0	12.5									
RPP 002	B ₁₉ C ₇ E ₂₃ F ₅ M ₄ R ₅ V ₇ W ₁₀₇	A	0	0	0	0	0	0	0	0	-14	25								4	7	6	5	4				
003		T																		2		8	9					
004																				2		11	10					
005																				2		12	13					
006																				2		14	15					
007																				4	19	16	17	18				
008																				2		20	21					
009	B ₂₁ C ₇ E ₂₃ F ₅ M ₄ R ₅ V ₇ W ₁₀₇																			4	22	23	24	25				
010																				2		26	28					
011																				4	32	29	30	31				
012																				4	33	34	35	36				
013																				4	37	38	39	40				
014																				2		42	41					
015																				2		43	44					
016																				2		45	46					
017	B ₁₉ C ₇ E ₂₃ F ₅ M ₄ R ₅ V ₇ W ₁₀₇																			2		47	48					
018																				2		50	51					
019																				2		52	53					
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397																												
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409																												
415																												
421																												

TABLE II. (Continued)

TEST: LARC -LTPT 130										DATA SET/RUN NUMBER COLLATION SUMMARY										DATE: 7-6-73	
DATA SET IDENTIFIER		CONFIGURATION		SCHD.		PARAMETERS/VALUES						NO. OF RUNS		TEST RUN NUMBERS							
				α β		SEL	SER	SR	SAF	SSB					2.5	4.7	10.0	12.5			
RPP 020	B ₉ C ₇ E ₂₃ F ₅ M ₄ R ₅ V ₇ W ₁₀₇	A	0	15	15	0	14	25						2		54	55	12.5			
021	↓	T	7.5	0	0	0	-14	25						4	59	56	57	58			
022	B ₂₁ C ₇ E ₂₃ F ₅ M ₄ R ₅ V ₇ W ₁₀₇		7.5	0	0	0	-14	25						2		61	60				
023	B ₉ C ₅ E ₁₈ F ₄ M ₃ R ₅ V ₅ D ₇ W ₈₇	0	0	0	0	0	-14	55						2		101	102				
024		T		0	0	-10	-14	55						2		103	104				
025				0	0	-10	-14	0						2		105	106				
026				0	0	0	-14	0						4	107	108	109	110			
027				0	0	0	-14	25						4	111	112	113	114			
028				0	0	-10	-14	25						2		115	116				
029				10	10	0	-14	25						2		117	118				
030				5	5	0	-14	25						2		119	121				
031				5	-5	0	-14	25						2		122	123				
032				-5	-5	0	-14	25						2		124	125				
033				-5	-15	0	-14	25						2		126	127				
034				15	-15	0	-14	25						2		129	128				
035				-20	-20	0	-14	25						2		130	131				
036				-10	-10	0	-14	25						2		132	133				
Y 037	↓	Y	Y	10	-10	0	-14	25						2		134	135				
1	7	13	19	25	31	37	43	49	55	61	67	75.76									
COEFFICIENTS																					
α OR β													MACH NO. = 0.25								
SCHEDULES													10VAR (1) 15.44 (2) 4.27								
$\alpha (A) = -2.070 + 2.68$																					

TABLE II. (Concluded)

[illegible]

TABLE III.

MODEL COMPONENT DIMENSIONAL DATA

MODEL COMPONENT: BODY - B19GENERAL DESCRIPTION: Fuselage, Configuration 3, per Rockwell LinesVL70-000139B.

NOTE: Identical to B17 except forebody.

Model Scale = 0.015

DRAWING NUMBER:VL70-000139BDIMENSIONS:FULL-SCALEMODEL SCALE

Length - IN.

1290.319.35

Max. Width - IN.

267.64.469

Max. Depth - IN.

244.53.668

Fineness Ratio

4.821754.82175Area - FT²

Max. Cross-Sectional

386.670.087

Planform

Wetted

Base

TABLE III. (Continued)

MODEL COMPONENT: BODY - B21

GENERAL DESCRIPTION: Fuselage, Configuration 3, Rockwell Lines per

"Alternate cambered forebody for VL70-000139B"

NOTE: B21 identical to B19, except forebody.

Model Scale = 0.015

DRAWING NUMBER: Altn. cambered forebody
for VL70-000139B

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length - IN.	<u>1290.3</u>	<u>19.35</u>
Max. Width - IN.	<u>267.6</u>	<u>4.469</u>
Max. Depth - IN.	<u>244.5</u>	<u>3.668</u>
Fineness Ratio	<u>4.82175</u>	<u>4.82175</u>
Area - FT ²		
Max. Cross-Sectional	<u>386.67</u>	<u>0.087</u>
Planform	<u> </u>	<u> </u>
Wetted	<u> </u>	<u> </u>
Base	<u> </u>	<u> </u>

TABLE III. (Continued)

Model Component: Canopy (C5)

General Description: 2A configuration per Lines VL70-000092.

Scale model = 0.015

Drawing Number: VL70-000092

Dimensions:	<u>Full-Scale</u>	<u>Model Scale</u>
Sta fwd bulkhead	<u>391.00</u>	<u>5.865</u>
Sta TE	<u>560.0</u>	<u>8.400</u>
Canopy intersects body ML	<u>391.00</u>	<u>5.865</u>
Fineness ratio	<u> </u>	<u> </u>
Area ~ ft ²	<u> </u>	<u> </u>
Max cross-sectional	<u> </u>	<u> </u>
Planform	<u> </u>	<u> </u>
Wetted	<u> </u>	<u> </u>
Base	<u> </u>	<u> </u>

No info on view angles

TABLE III. (Continued)

MODEL COMPONENT: Canopy - C7GENERAL DESCRIPTION: Configuration 3 per Rockwell Lines VL70-000139Model Scale = 0.015

DRAWING NUMBER

VL70-000139DIMENSION:FULL SCALEMODEL SCALELength ($X_C = 433$ to $X_O = 670$) - in. FS2373.555

Max Width

Max Depth ($Z_O =$ to $Z_O = 501$) - in FS

Fineness Ratio

Area

Max Cross-Sectional

Planform

Wetted

Base

TABLE III. (Continued)

Model Component: Manipulator housing (D7)

General Description: 2A configuration, lightweight orbiter per Lines

VL70-0000y3

Scale model = 0.015

Drawing Number: VL70-000093

Dimensions:	<u>Full-Scale</u>	<u>Model Scale</u>
Length ~ in.	<u>881.00</u>	<u>13.215</u>
Max width ~ in.	<u>51.00</u>	<u>0.765</u>
Max depth ~ in.	<u>23.00</u>	<u>0.345</u>
Fineness ratio	<u> </u>	<u> </u>
Area ~ ft ²	<u> </u>	<u> </u>
Max cross-sectional	<u> </u>	<u> </u>
Planform	<u> </u>	<u> </u>
Wetted	<u> </u>	<u> </u>
Base	<u> </u>	<u> </u>

Q Fuselage, BP = 0.0 in. FS

WP = 500.0 in. FS

X₀ 426.0 to 1307.0 in. FS

TABLE III. (Continued)

Model Component: Elevon (E₁₈)General Description: 2A configuration per Wg7, Lines VL70-000093data for 1 of 2 sidesModel scale = 0.15Drawing Number: VL70-000093

Dimensions:

	<u>Full-Scale</u>	<u>Model Scale</u>
Area - ft ²	<u>205.517</u>	<u>0.046</u>
Span (equivalent) - in.	<u>353.34</u>	<u>5.300</u>
Inbd equivalent chord - in. (BP 115.0 in.)	<u>114.78</u>	<u>1.722</u>
Outbd equivalent chord - in. (BP 468.3 in.)	<u>55.00</u>	<u>0.825</u>
Ratio movable surface chord/ total surface chord		
At inbd equiv chord	<u>.208</u>	<u>.208</u>
At outbd equiv chord	<u>.400</u>	<u>.400</u>
Sweepback angles - deg		
Leading edge	<u>0.00</u>	<u>0.00</u>
Trailing edge	<u>-10.02</u>	<u>-10.02</u>
Hinge line	<u>0.00</u>	<u>0.00</u>
Area moment (normal to hinge line) - ft ³	<u>1548.07</u>	<u>0.005</u>
Product of area moment		

Note: The elevon panel consists of an inboard and outboard segment.
The split line dividing the segments is at BP 281 inches
full scale (BP 4.215 inches model scale).

TABLE III. (Continued)

MODEL COMPONENT: ELEVON - E23GENERAL DESCRIPTION: Configuration 3 per W107 Rockwell LinesVL70-000139B, data for (1) of (2) sidesModel Scale = 0.015DRAWING NUMBER: VL70-000139B

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area - FT ²	<u>205.52</u>	<u>0.0462</u>
Span (equivalent) - IN.	<u>353.34</u>	<u>5.300</u>
Inb'd equivalent chord	<u>114.78</u>	<u>1.722</u>
Outb'd equivalent chord	<u>55.00</u>	<u>0.825</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>.208</u>	<u>.208</u>
At Outb'd equiv. chord	<u>.400</u>	<u>.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>0.00</u>	<u>0.00</u>
Tailing Edge	<u>-10.24</u>	<u>-10.24</u>
Hingeline	<u>0.00</u>	<u>0.00</u>
Area Moment (Normal to hinge line)- FT ³	<u>1548.07</u>	<u>0.00174</u>
Product of Area Moment		

TABLE III. (Continued)

Model Component: Body flap (F₄)General Description: 2A configuration per Lines VL70-000094Scale model = 0.015Drawing Number: VL70-000094 "A"

Dimensions:	Full-Scale	Model Scale
Length - in.	84.70	1.370
Max width - in.	265.00	3.975
Max depth - in.	21.00	0.315
Fineness ratio		
Area - ft ²		
Max cross-sectional		
Planform	142.64	0.0321
Wetted		
Base	38.646	0.0087

TABLE III. (Continued)

MODEL COMPONENT: F5 Body FlapGENERAL DESCRIPTION: 3 Configuration per Rockwell Lines VL70-000139Scale Model = 0.015

DRAWING NUMBER

VL70-000139DIMENSION:FULL SCALEMODEL SCALE

Length - in

84.701.271

Max Width - in

267.64.014

Max Depth

Fineness Ratio

Area - Ft²

Max Cross-Sectional

Planform

Wetted

Base

142.50.032138.09580.00857

TABLE III. (Continued)

MODEL COMPONENT: G-1 Landing Gear

GENERAL DESCRIPTION: Two (2) nose gear doors and one (1) main gear door with gear fully extended. Ref. Figures 2c and 2d.

Model Scale = 0.015

TEST OA17

DRAWING NUMBER:

SSA-00007

DIMENSIONS:

FULL-SCALE

MODEL SCALE

Length

Max. Width

Max. Depth

Fineness Ratio

Area

Max. Cross-Sectional

Planform

Wetted

Base

TABLE III. (Continued)

Model Component: Body (B10)

General Description: Double delta wing fuselage per Lines VL70-000093, with 57.0-in. radius nose.

2A configuration lightweight orbiter.

Scale model = 0.015 (18-0) VL72-000061

Drawing Number: VL70-000093

Dimensions:	<u>Full-Scale</u>	<u>Model Scale</u>
Length ~ in.	<u>1328.3</u>	<u>19.924</u>
Max width ~ in. (at $X_0 = 1528.3$)	<u>265.0</u>	<u>3.975</u>
Max depth ~ in. (at $X_0 = 1480.52$)	<u>248.0</u>	<u>3.720</u>
Fineness ratio	<u>5.012</u>	<u>5.012</u>
Area ~ ft ²		
Max cross-sectional	<u>456.40</u>	<u>0.1027</u>
Planform	<u> </u>	<u> </u>
Wetted	<u> </u>	<u> </u>
Base	<u> </u>	<u> </u>

TABLE III. (Continued)

Model Component: OMS pods (M_3)

General Description: 2A Lightweight configuration per MC120074,
per Lines VL70-000094.

Scale model = 0.015

Drawing Number: _____

Dimensions:	Full-Scale	Model Scale
Length - in.	346.0	5.190
Max width - in. (at $X_0 = 1450.0$)	108.0	1.620
Max depth - in. (at $X_0 = 1500.0$)	113.8	1.707
Fineness ratio	_____	_____
Area - ft ²	_____	_____
Max cross-sectional	---	---
Planform	---	---
Wetted	---	---
Base	---	---

\bar{C} OF OMS pod

$Z_0 = 463.9$ in. FS; WP $400.0 + 63.9 = 463.9$ in. FS
 $6.000 + .959 = 6.959$ in. MS

$Y_0 = 80.0$ in. FS; 1.20 in. MS

From fuselage station 1214.0 to 1560 in. FS = 346.0 in. FS
18.210 to 23.40 in. MS = 5.190 in. MS

TABLE III. (Continued)

MODEL COMPONENT: O/S Pod - M₄GENERAL DESCRIPTION: Configuration 3 per Rockwell Lines VL70-000139NOTE: M₄ identical to M₃, except intersection to fuselage.Model Scale = 0.015.

DRAWING NUMBER

VL70-000139DIMENSION:FULL SCALEMODEL SCALE

Length - IN

346.05.190

Max Width - IN

108.01.620

Max Depth - IN

113.01.695

Fineness Ratio

Area - FT²

Max Cross-Sectional

Planform

Wetted

Base

TABLE III. (Continued)

Model Component: Rudder (R_5)General Description: 2A configuration per Lines VL70-000095

Scale model = 0.015

Drawing Number: VL70-000095

Dimensions:

	Full-Scale	Model Scale
Area - ft^2	106.38	0.024
Span (equivalent) - in.	201.0	3.015
Inbd equivalent chord - in.	91.585	1.374
Outbd equivalent chord - in.	50.833	0.762
Ratio movable surface chord/ total surface chord		
At inbd equiv chord	0.400	0.400
At outbd equiv chord	0.400	0.400
Sweepback angles - deg		
Leading edge	34.83	34.83
Trailing edge	26.25	26.25
Hinge line	34.83	34.83
Area moment (normal to hinge line) - ft^3	526.125	0.0018
Product of area and mean chord		

TABLE III. (Continued)

Model Component: Vertical tail (V₅), lightweight orbiter configurationGeneral Description: Centerline vertical tail, double wedge airfoil with rounded leading edge.

Scale model = 0.015

Drawing Number: VL70-000095

Dimensions:	<u>Full-Scale</u>	<u>Model Scale</u>
Total Data		
Planform area (theo) ~ ft ²	<u>413.25</u>	<u>.0929</u>
Span (theo) ~ in.	<u>315.72</u>	<u>4.735</u>
Aspect ratio	<u>1.675</u>	<u>1.675</u>
Rate of taper	<u>0.507</u>	<u>0.507</u>
Taper ratio	<u>0.404</u>	<u>0.404</u>
Sweepback angles ~ deg		
Leading edge	<u>45.000</u>	<u>45.000</u>
Trailing edge	<u>26.249</u>	<u>26.249</u>
0.25 element line	<u>41.130</u>	<u>41.130</u>
Chords ~ in.		
Root (theo) WP	<u>268.50</u>	<u>6.746</u>
Tip (theo) WP	<u>108.47</u>	<u>1.627</u>
MAC	<u>199.81</u>	<u>2.997</u>
Fus sta of 0.25 MAC	<u>1463.50</u>	<u>21.952</u>
WP of 0.25 MAC	<u>635.522</u>	<u>9.533</u>
BL of 0.25 MAC	<u>0.00</u>	<u>0.00</u>
Airfoil section		
Leading wedge angle ~ deg	<u>10.000</u>	<u>10.000</u>
Trailing wedge angle ~ deg	<u>14.920</u>	<u>14.920</u>
Leading wedge radius ~ in.	<u>2.00</u>	<u>2.000</u>
Void area ~ ft ²	<u>13.17</u>	<u>0.0030</u>
Blanketed area ~ ft ²	<u>12.67</u>	<u>0.0028</u>

TABLE III. (Continued)

MODEL COMPONENT: VERTICAL - V 7GENERAL DESCRIPTION: Centerline vertical tail, doublewedged airfoil with rounded leading edge.NOTE: Same as V5, but with manipulator housing removed.Model Scale = 0.015

DRAWING NUMBER:

VL70-000139DIMENSIONS:FULL-SCALEMODEL SCALETOTAL DATA

Area (Theo) Ft ²	<u>425.92</u>	<u>0.0958</u>
Planform	<u>315.72</u>	<u>4.736</u>
Span (Theo) In	<u>1.675</u>	<u>1.675</u>
Aspect Ratio	<u>0.507</u>	<u>0.507</u>
Rate of Taper	<u>0.404</u>	<u>0.404</u>
Taper Ratio		
Sweep Back Angles, degrees	<u>45.000</u>	<u>45.000</u>
Leading Edge	<u>25.249</u>	<u>26.249</u>
Trailing Edge	<u>41.130</u>	<u>41.130</u>
0.25 Element Line		
Chords:		
Root (Theo) WP	<u>268.50</u>	<u>4.028</u>
Tip (Theo) WP	<u>103.47</u>	<u>1.627</u>
MAC	<u>189.81</u>	<u>2.997</u>
Fus. Sta. of .25 MAC	<u>1463.50</u>	<u>21.953</u>
W. P. of .25 MAC	<u>635.522</u>	<u>9.533</u>
B. L. of .25 MAC	<u>0.00</u>	<u>0.00</u>
Airfoil Section		
Leading Wedge Angle Deg	<u>10.000</u>	<u>10.000</u>
Trailing Wedge Angle Deg	<u>14.920</u>	<u>14.920</u>
Leading Edge Radius	<u>2.0</u>	<u>0.030</u>
Void Area - Ft ²	<u>13.17</u>	<u>0.198</u>
Blanketed Area	<u>0.00</u>	<u>0.00</u>

TABLE III. (Continued)

Model Component: Wing (W87), new lightweight orbiterGeneral Description: Orbiter configuration per Lines VL70-000093.

Note: (Dihedral angle is defined at the lower surface of the wing at the 75.33-percent element line projected into a plane perpendicular to the RFL.) Scale model = 0.015

Test No. _____ Drawing No. VL70-000093

Dimensions:

	Full-Scale	Model Scale
Total Data		
Planform area (theo) ~ ft ²	2690.00	0.605
Span (theo) ~ in.	936.68	14.05
Aspect ratio	2.265	2.265
Rate of taper	1.177	1.177
Taper ratio	0.200	0.200
Dihedral angle ~ deg	3.500	3.500
Incidence angle ~ deg	3.000	3.000
Aerodynamic twist ~ deg	+3.000	+3.000
Sweepback angles ~ deg		
Leading edge	45.000	45.000
Trailing edge	-10.24	-10.24
0.25 element line	35.209	35.209
Chords ~ in.		
Root (theo) at BP 0.0	689.24	10.339
Tip (theo) at BP	137.85	2.068
MAC	474.81	7.122
Fus sta of 0.25 MAC	1136.89	17.053
WP of 0.25 MAC	299.20	4.488
BL of 0.25 MAC	182.13	2.732
Exposed Data		
Area (theo) ~ ft ²	1752.29	0.394
Span (theo) ~ in. (BP 108.0 to	720.68	10.810
Aspect ratio	2.058	2.058
Taper ratio	0.2451	0.2451
Chords ~ in.		
Root at BP 108.0	562.40	8.436
Tip at $1.00 \frac{b}{2}$	137.85	2.068
MAC	393.03	5.895
Fus sta of 0.25 MAC	1185.31	17.779
WP of 0.25 MAC	300.20	4.503
BL of 0.25 MAC	143.76	2.156
Airfoil section (Rockwell mod NASA XXXX-64)		
Root $\frac{b}{2} = 0.425$	0.10	0.10
Tip $\frac{b}{2} = 1.00$	0.12	0.12
Data for 1 of 2 sides		
Leading edge cuff		
Planform area - ft ²	120.33	0.0271
Leading edge intersects fus ML at sta ~ in.	560.0	8.400
Leading edge intersects wing at sta ~ in.	1035.0	15.525

TABLE III. (Concluded)

MODEL COMPONENT: WING-W 107GENERAL DESCRIPTION: Configuration 3 per Rockwell Lines VL70-000139BNOTE: Same as W103, except cuff, airfoil and incidence angle.

Model Scale = 0.015

TEST NO.DWG. NO. VL70-000139BDIMENSIONS:FULL-SCALEMODEL SCALETOTAL DATAArea (Theo.) Ft^2

Planform

Span (Theo) In.

Aspect Ratio

Rate of Taper

Taper Ratio

Dihedral Angle, degrees (@ TE of Elevon)

Incidence Angle, degrees

Aerodynamic Twist, degrees

Sweep Back Angles, degrees

Leading Edge

Trailing Edge

0.25 Element Line

Chords:

Root (Theo) B.P.O.O.

Tip, (Theo) B.P.

MAC

Fus. Sta. of .25 MAC

W.P. of .25 MAC

B.L. of .25 MAC

EXPOSED DATAArea (Theo) Ft^2

Span, (Theo) In. BP108

Aspect Ratio

Taper Ratio

Chords

Root BP108

Tip 1.00 $\frac{b}{2}$

MAC

Fus. Sta. of .25 MAC

W.P. of .25 MAC

B.L. of .25 MAC

Airfoil Section (Rockwell Mod NASA)

XXXX-64

Root $\frac{b}{2}$ Tip $\frac{b}{2}$

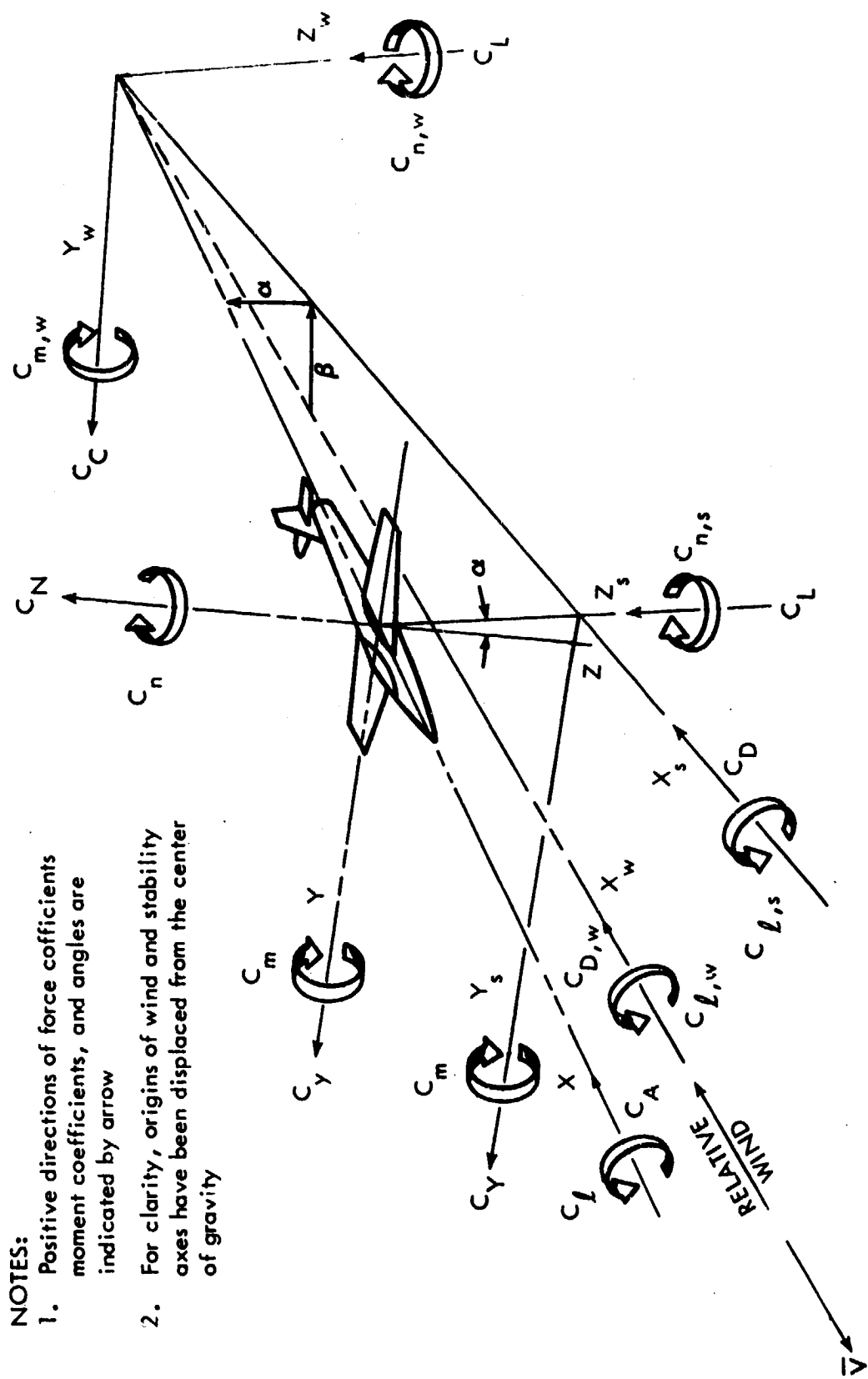
Data for (1) of (2) Sides

Leading Edge Cuff

Planform Area Ft^2

Leading Edge Intersects Fus M. L. @ Sta

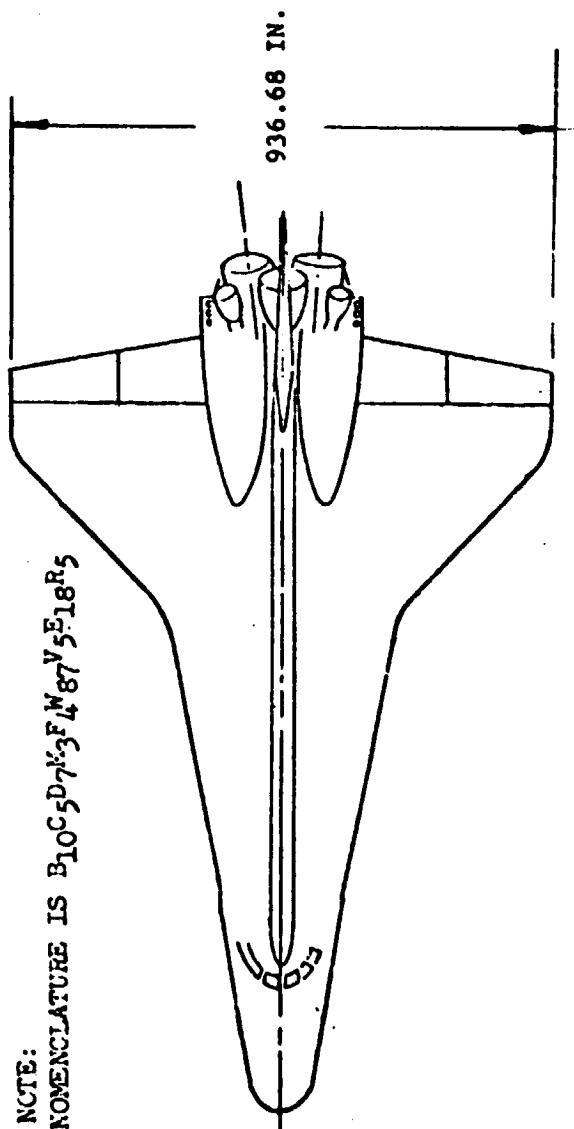
Leading Edge Intersects Wing @ Sta



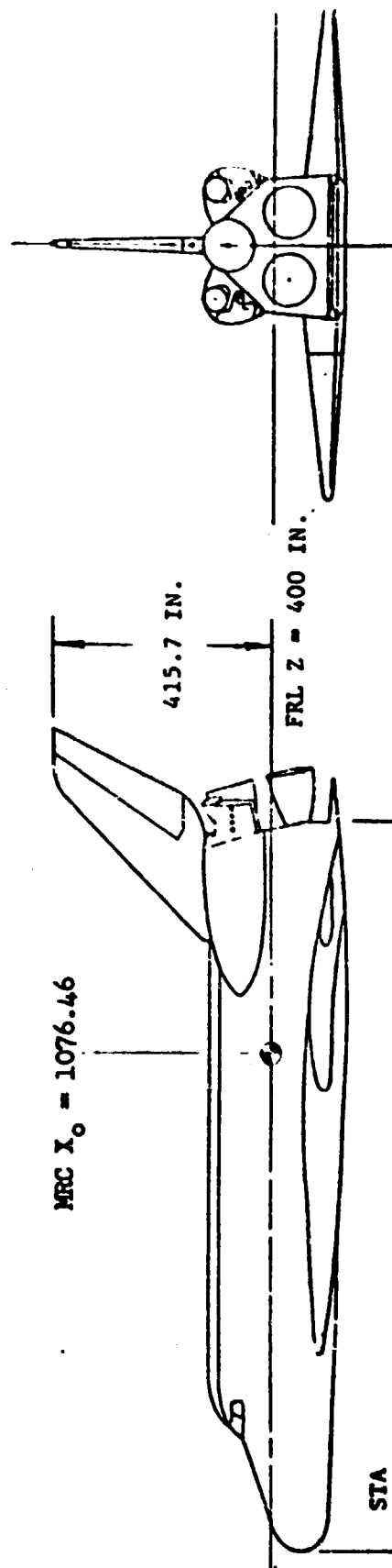
- NOTES:
1. Positive directions of force coefficients, moment coefficients, and angles are indicated by arrow
 2. For clarity, origins of wind and stability axes have been displaced from the center of gravity

Figure 1. - Axis Systems.

NOTE:
NOMENCLATURE IS B10C5D7K3F4M875E18R5



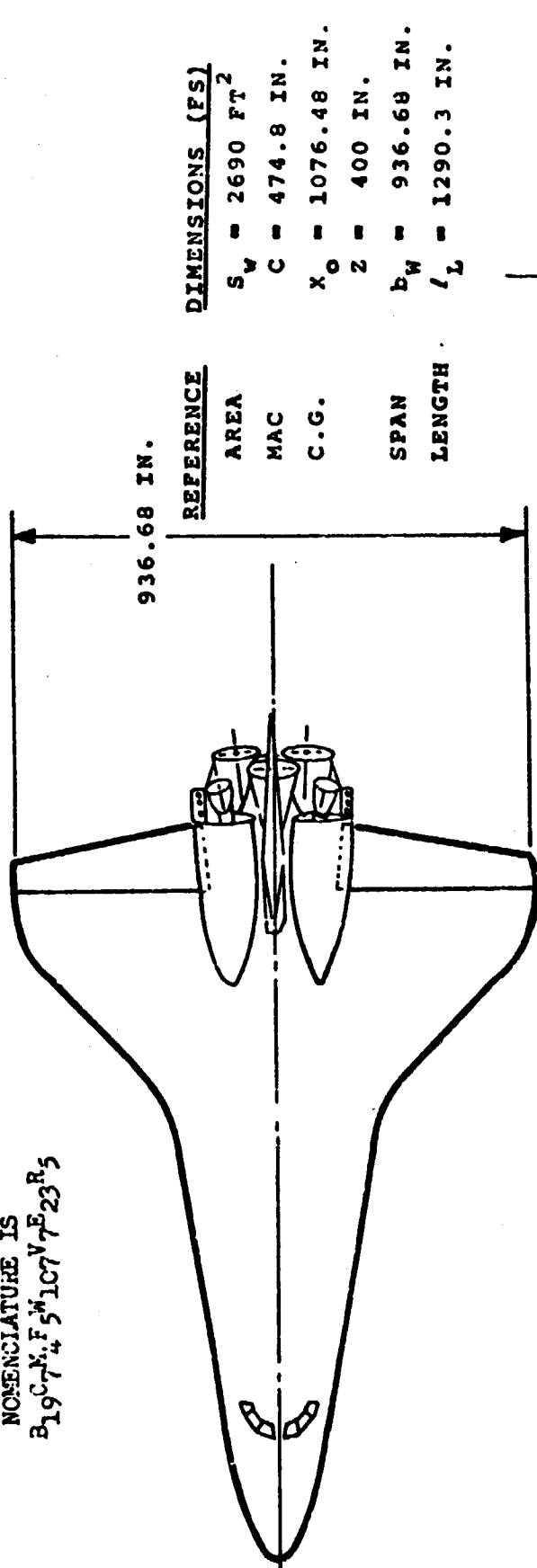
REFERENCE	DIMENSIONS
AREA	$S_w = 2690 \text{ ft}^2$
MAC	$\bar{C} = 474.8 \text{ IN.}$
C.G.	$X = 876.46 \text{ IN.}$
	$Z = 400 \text{ IN.}$
SPAN	$b_w = 936.68 \text{ IN.}$
LENGTH	$L = 1328.3 \text{ IN.}$



a. 22B Model Configuration
Figure 2. - Model Sketches.

NOTE:

NOMENCLATURE IS
B19C-M.F.W.107V^E23^R5



DIMENSIONS (FS)

$S_w = 2690 \text{ FT}^2$
 $C = 474.8 \text{ IN.}$
 $X_o = 1076.48 \text{ IN.}$
 $Z = 400 \text{ IN.}$
 $b_w = 936.68 \text{ IN.}$
 $l_L = 1290.3 \text{ IN.}$

REFERENCE

AREA

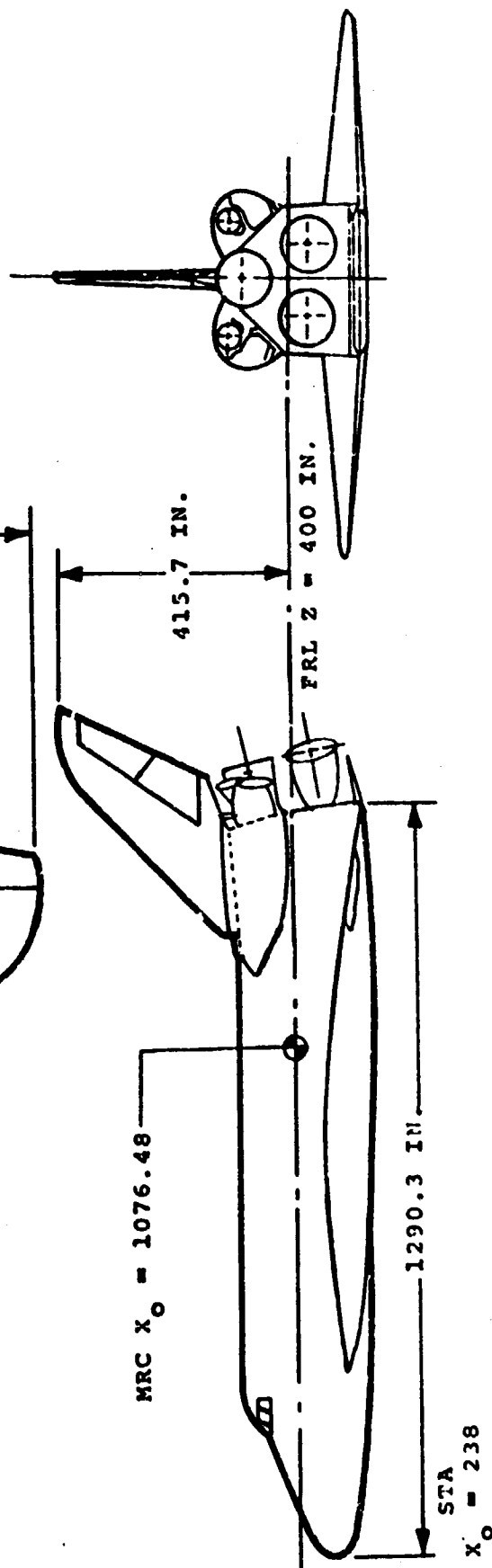
MAC

C.G.

SPAN

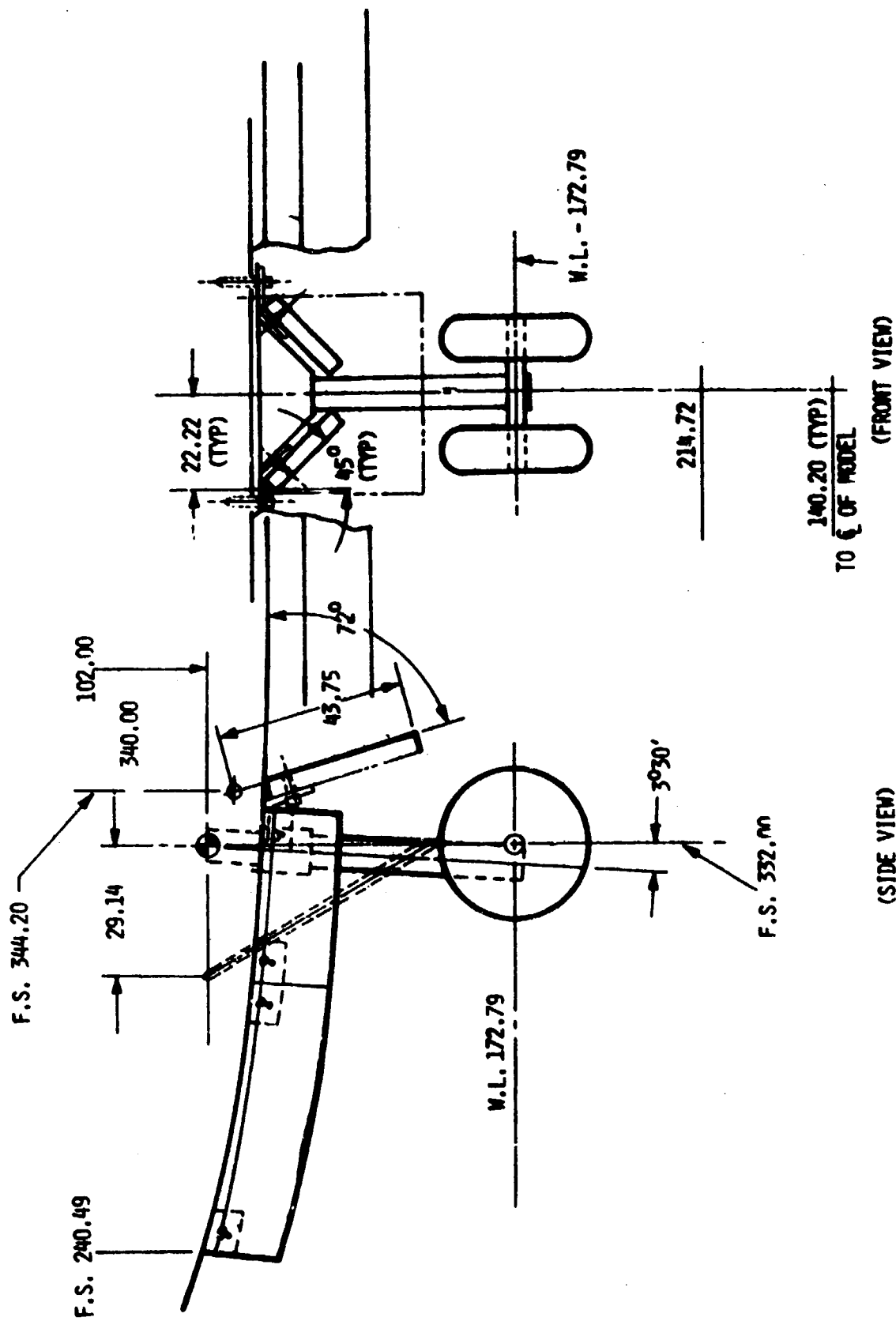
LENGTH

40

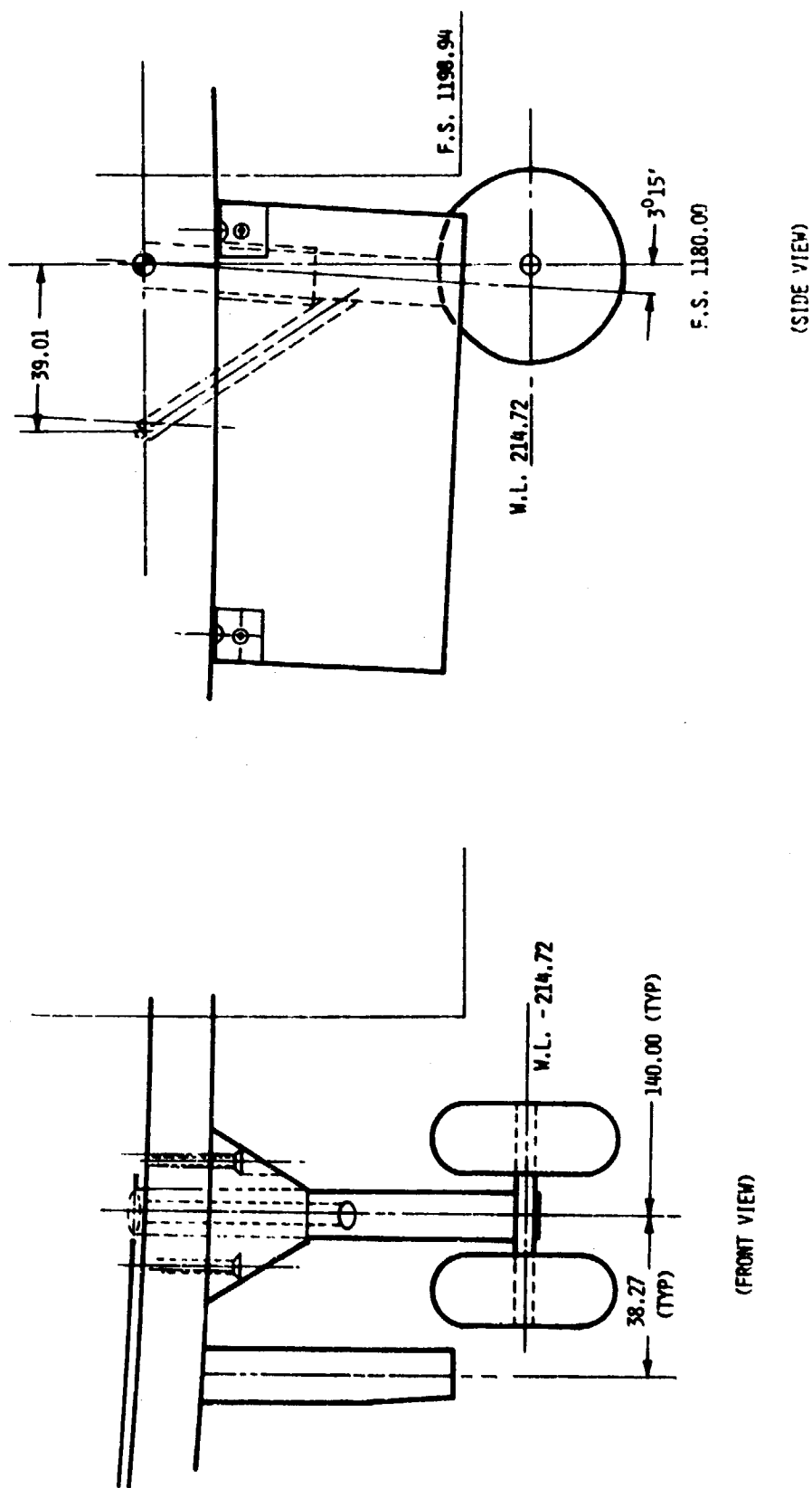


b. 139B Model Configuration

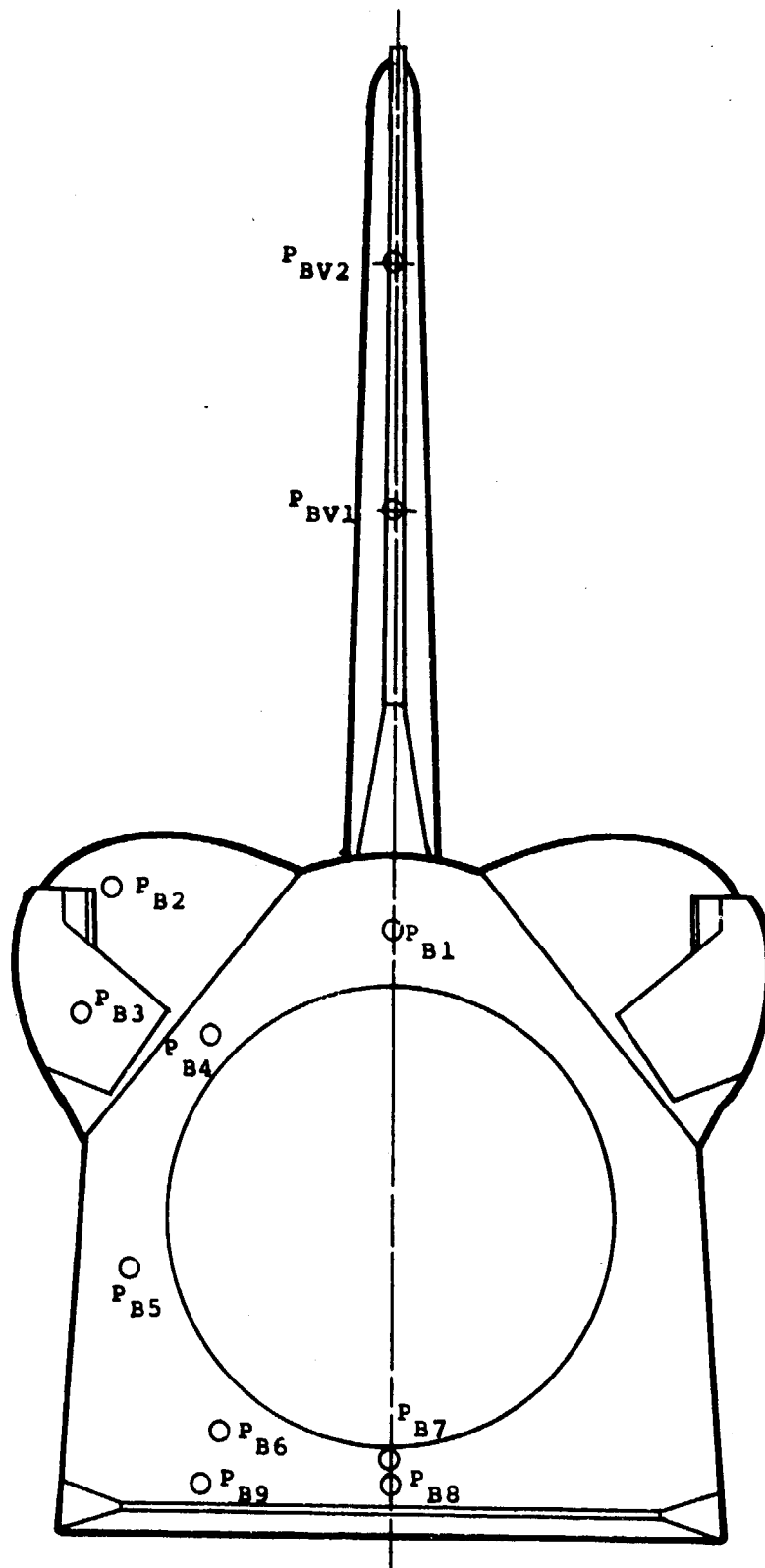
Figure 2. - Continued.



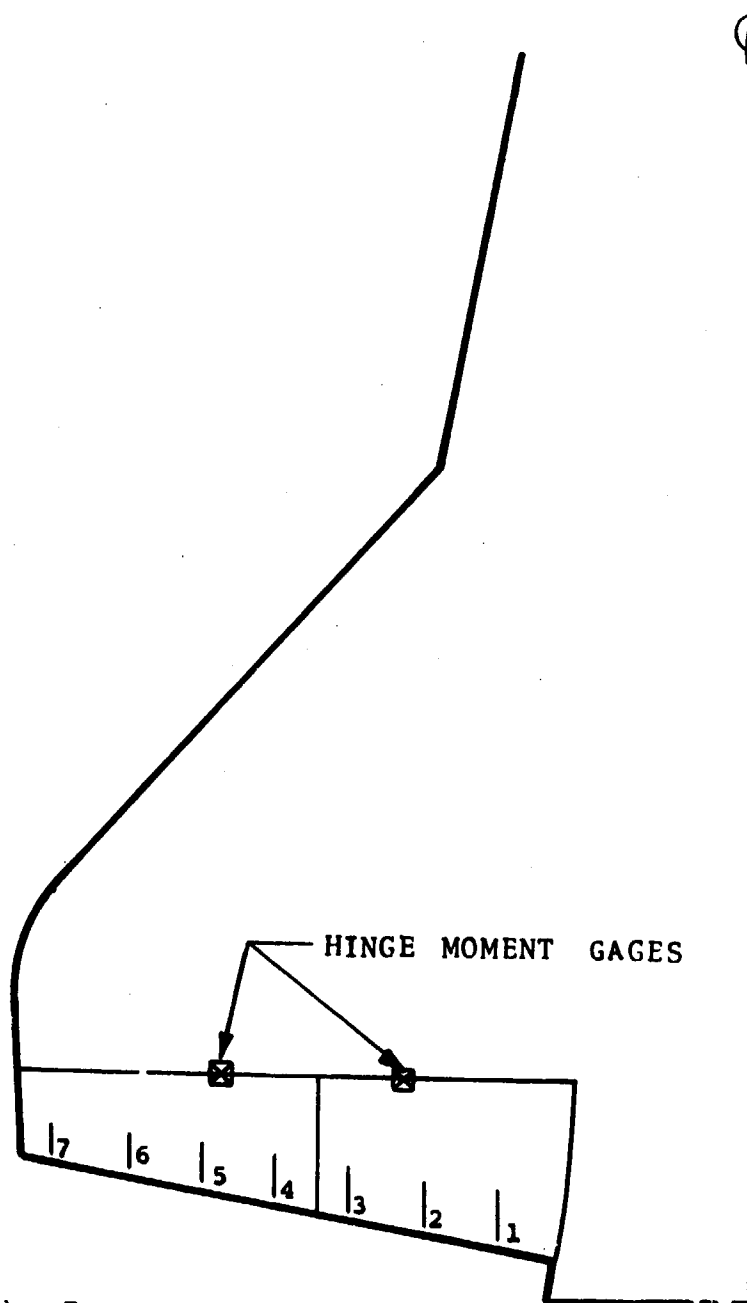
2. Nose Gear - C₁
Figure 2. - Continued.



d. Main Gear - G₁
Figure 2. - Concluded.



a. Model Base Pressure Instrumentation
Figure 3. - Instrumentation Sketches.



Nos. 1 thru 7
indicate locations
of wing trailing
pressure orifice.

b. Model Elevon Instrumentation

Figure 3. - Concluded.

DATA FIGURES



0A17.LTPT138.ORB 3.(B19C7F5M4)(W107E23)(V7R5) (APP002)

PARAMETRIC VALUES			
SYMBOL	INVL	BETA	MACH
○	2.473	.000	.243
□	4.812	.000	.000
△	10.265	.000	-14.250
◇	12.192	24.920	

REFERENCE INFORMATION			
SREF	87.1560	50.IN	
LREF	19.3545	INCES	
BREF	14.0502	INCES	
XTRP	12.5770	INCES	
YTRP	.0000	INCES	
ZTRP	6.0000	INCES	
SCALE	.0150	SCALE	

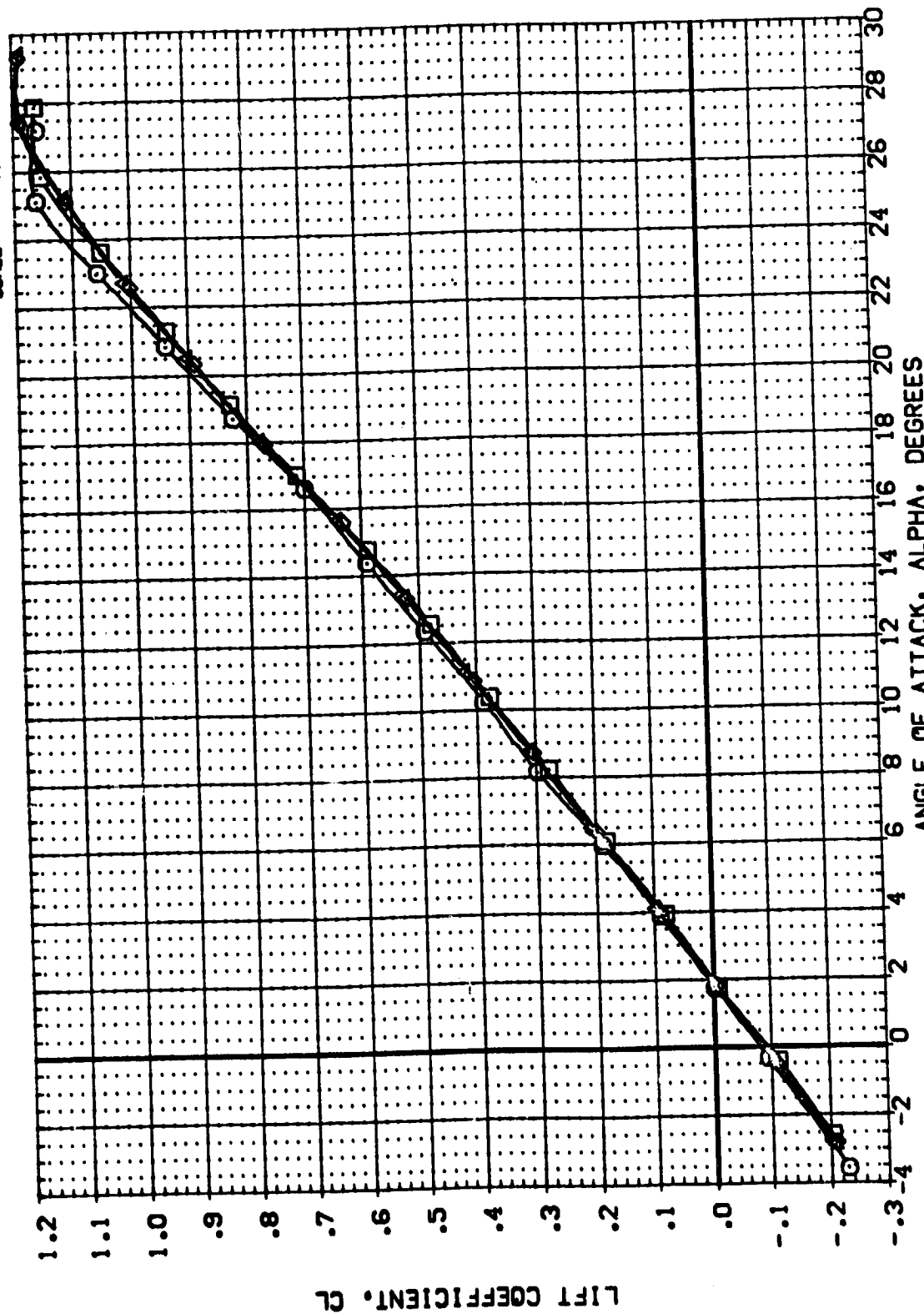


FIGURE 4 1398 ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.ORB 3.(B19C7F5M4)(W107E23)(V7R5) (APP002)

SYMBOL	RV/L	BETA	ELEVTR	RUDDER	SPDRK	PARAMETRIC VALUES	MACH	243	REFERENCE INFORMATION
○	2.473					.000		.243	SREF 87.1560
□	4.812					.000		.000	LREF 19.3545
◇	10.285					.000		-14.250	BREF 11.0502
△	12.192					.000			XREF 12.5770
						24.520			YREF .0000
									ZREF .0000
									SCALE .0150

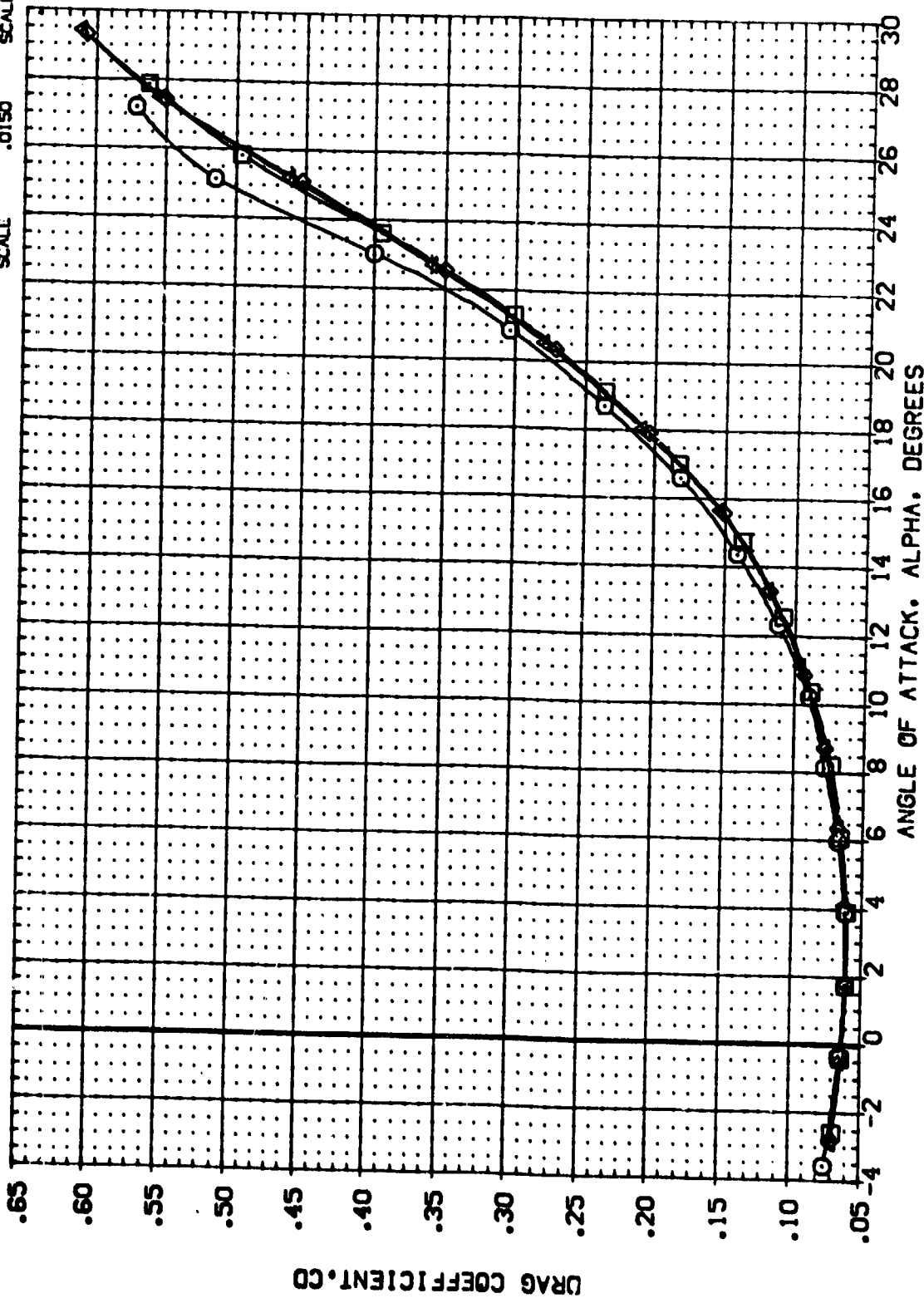


FIGURE 4 139B ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

(APP002)

SYMBOL	RVL	PARAMETRIC VALUES	REFERENCE INFORMATION
○	2.473	BETA	SREF
□	4.812	ELEVTR	SQ. IN.
◇	10.265	FLUDR	INCHES
△	12.192	SPOBRK	INCHES
			INCHES
			SCALE
			SCALE

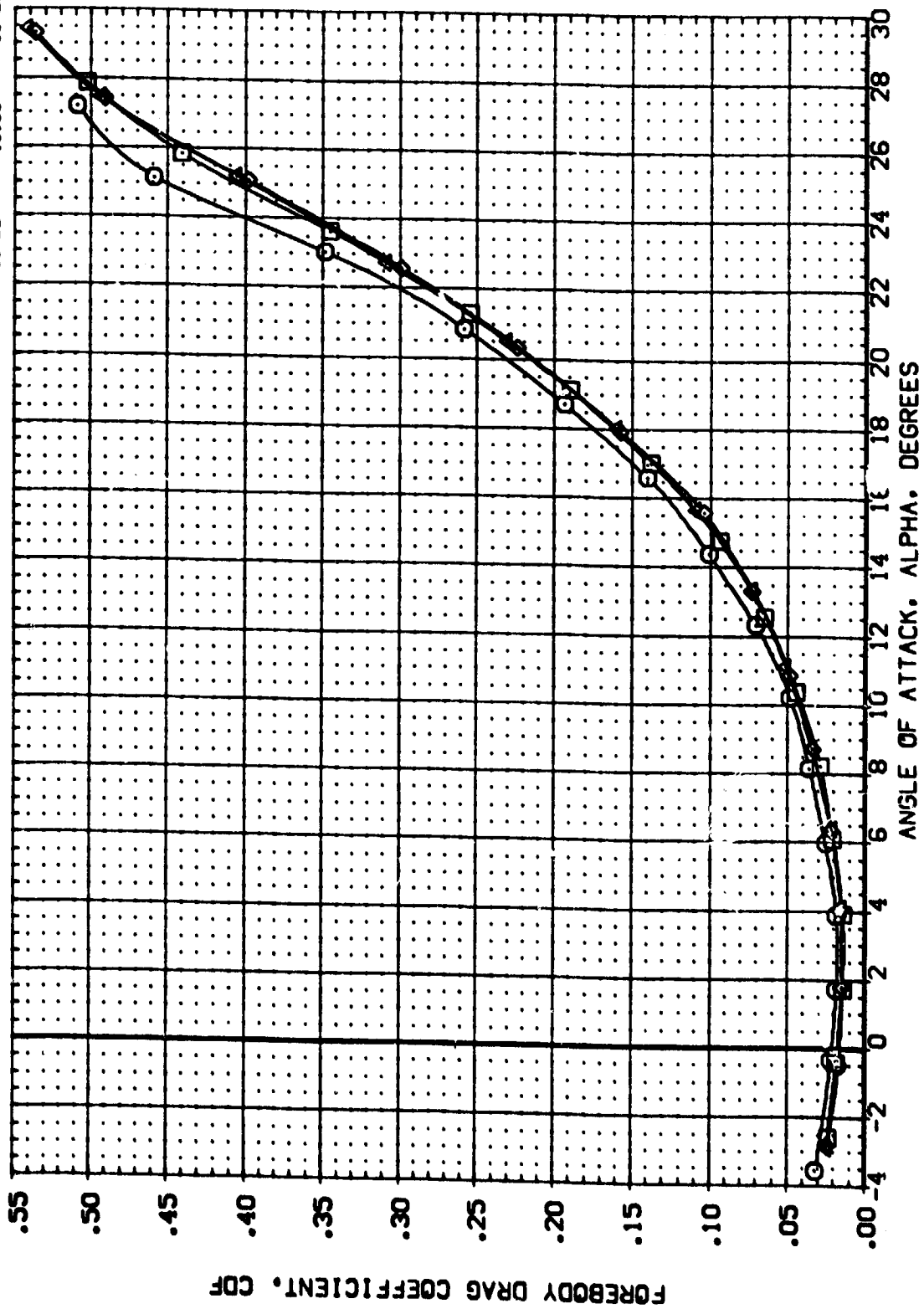


FIGURE 4 1398 ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.ORB 3.(B19C7F5M4)(W107E23)(V7R5) (APP002)

SYMB.	RVL	BETA	PARAMETRIC VALUES	REFERENCE INFORMATION
○	2.473	ELEVTR	.000	SREF 97.1560
□	4.812	RUDDER	.000	LREF 19.2545
◇	10.265	SPOBRK	.000	BREF 14.0502
△	12.152		24.920	XREF 12.5770
				YREF .0000
				ZREF 6.0000
				SCALE .0150

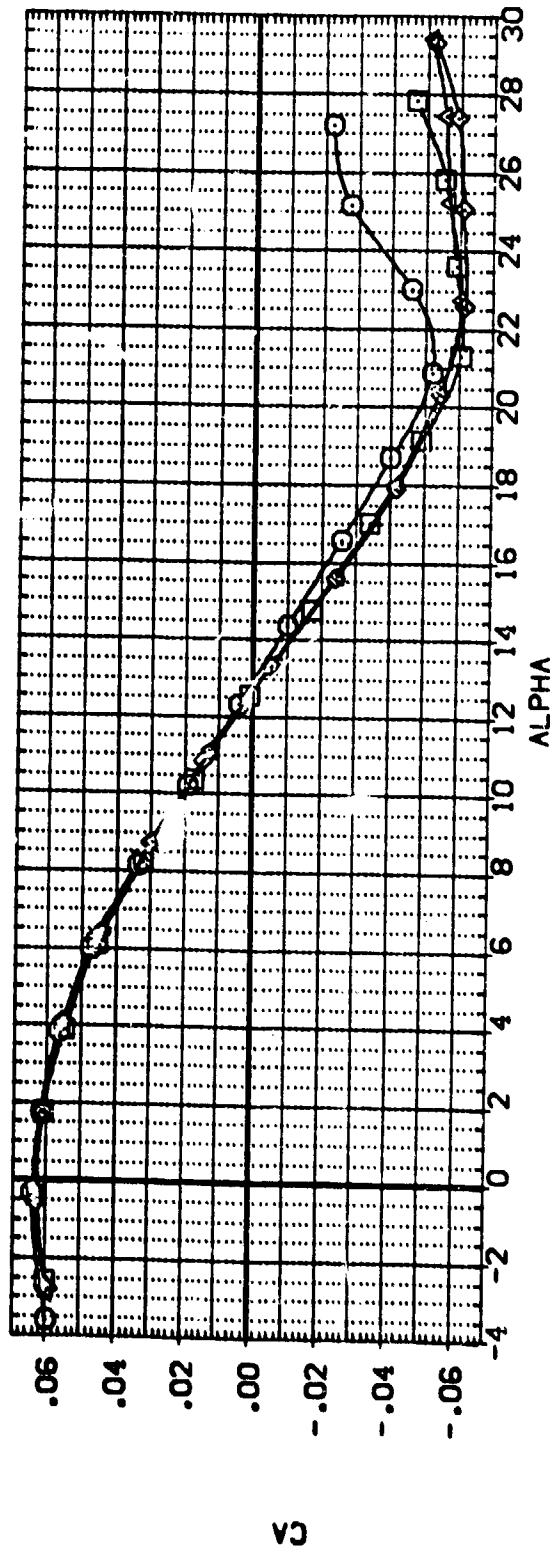
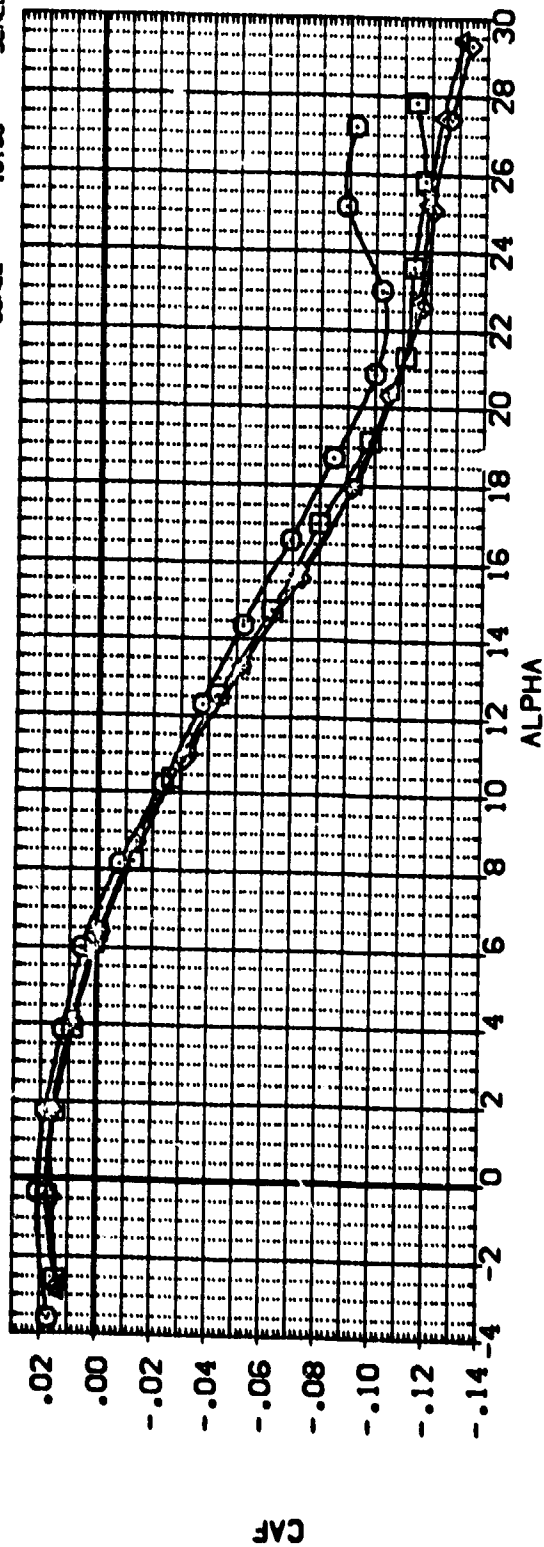


FIGURE 4 139B ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS



0A17.L1PT138.0K3 3.(819C7F5M4)(W107E23)(V7R5) (APP002)

SYMBOL		RV/L		BETA		PARAMETRIC VALUES		REFERENCE INFORMATION	
□		2.473				.000	MACH	SREF	87.1560
○		4.812		ELEVTR		.000	AILRON	LREF	19.3545
◇		10.255		RUDER		.000	BDFLAP	BREF	14.0502
△		12.192		SPOBRK		24.920		XRRP	12.5770
								YRRP	.0000
								ZRRP	6.0000
								SCALE	.0150
									INCHES
									INCHES
									INCHES
									SCALE

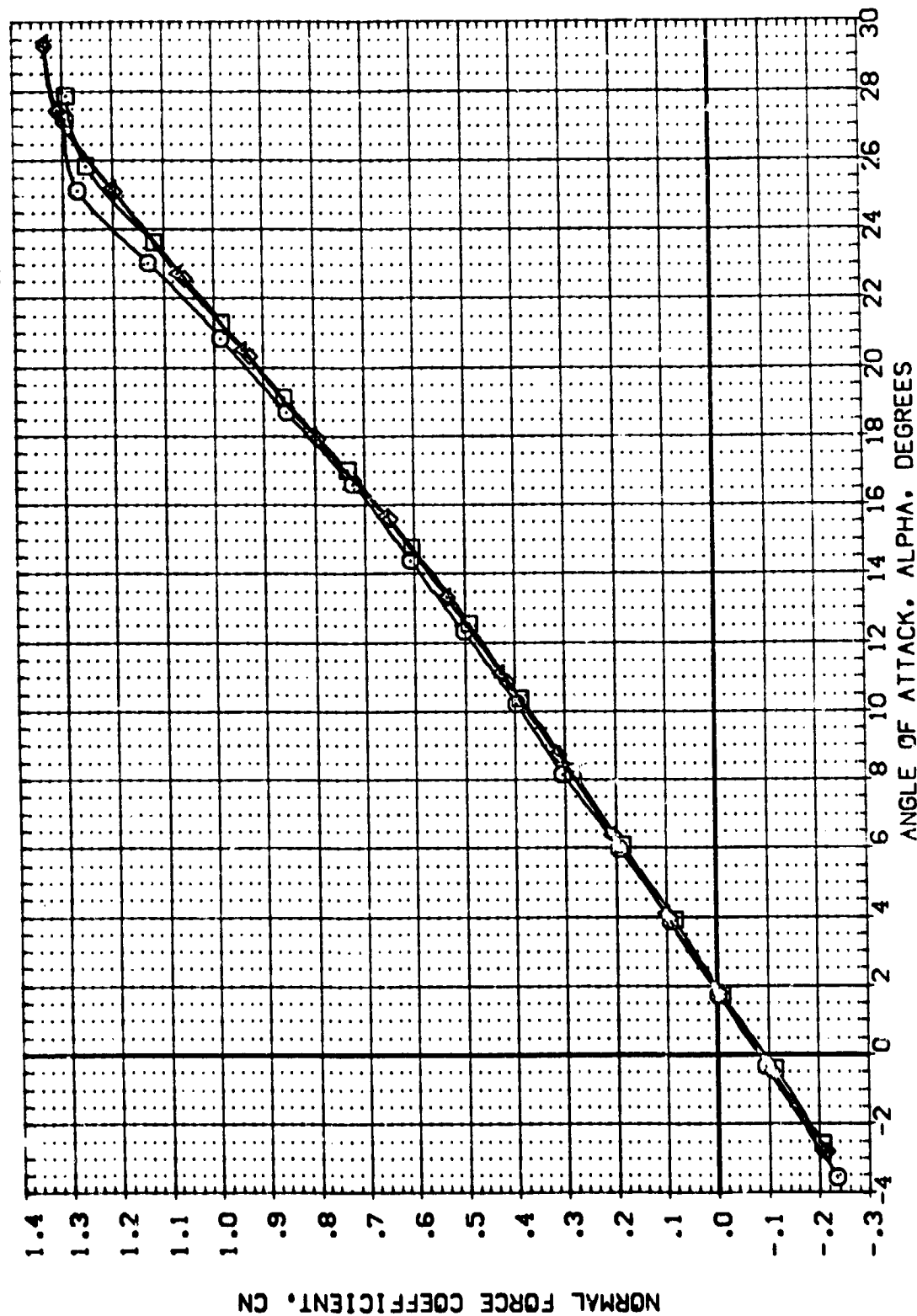


FIGURE 4 1398 ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.ORB 3.(B19C7FSM4)(W107E23)(V7R5) (APP002)

SYMBOL	RV/L	BETA	ELEVTR	RUDDER	SPOBRK	PARALLEL VALUES	REFERENCE INFORMATION
○	2.473	.000	.000	.000	.243	MACH	SREF 87.1560
□	4.812	.000	.000	.000	.000	AILRON	LREF 19.3545
△	10.265	.000	.000	.000	-14.250	BOFLAP	BREF 14.0502
	12.192				24.920		YRRP 12.5770
							ZRRP 6.0000
							SCALE .0150

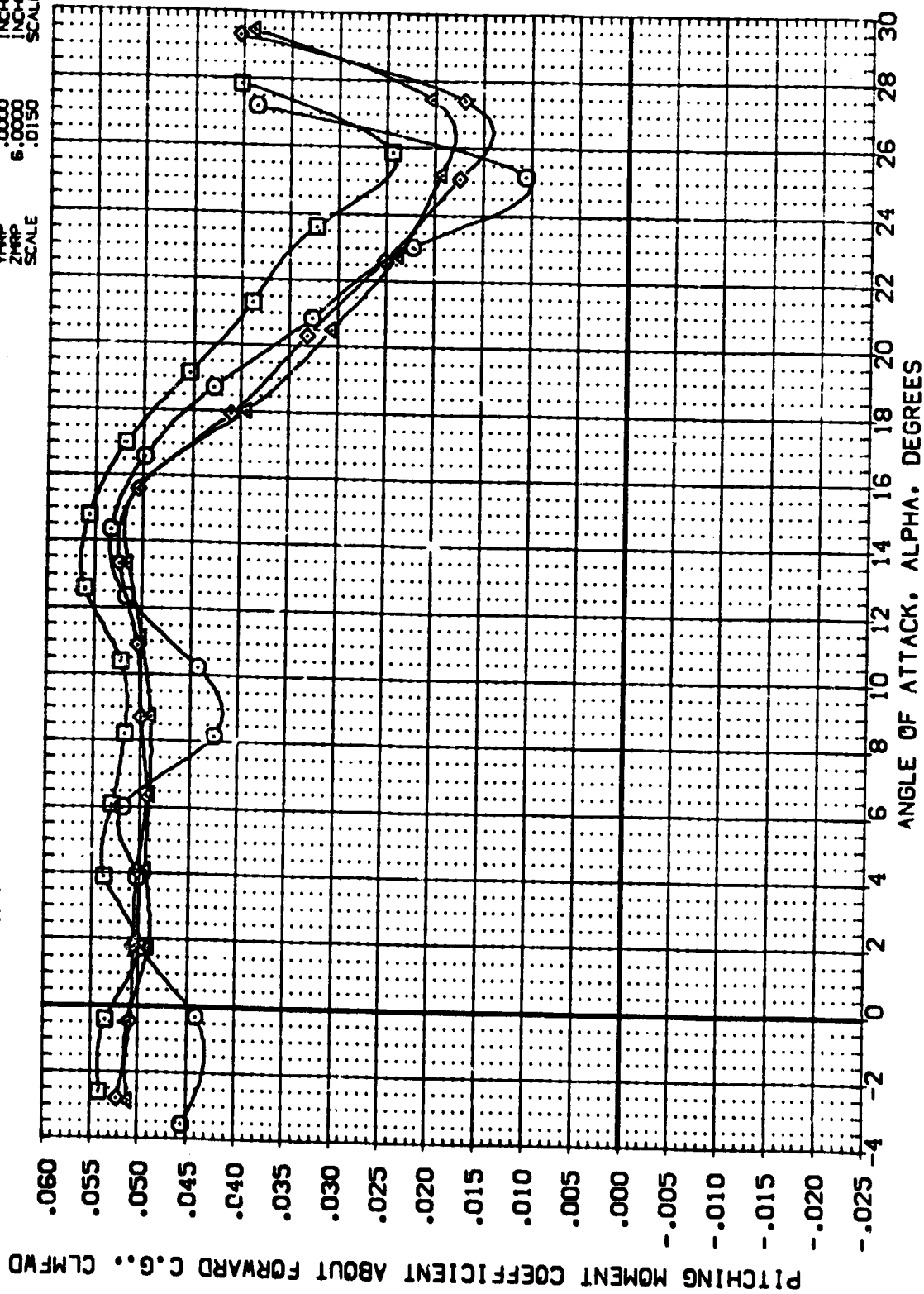


FIGURE 4 1398 ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS



0A17.LTPT138.ORB 3.(B19C7F5M4)(W107E23)(V7R5) (APP002)

SYMBOL	REV/L	BETA	PARAMETRIC VALUES	REF	REFERENCE INFORMATION
○	2.473	.000	MACH .243	SRF	87.1560
□	4.812	.000	AILRON .000	LRP	19.3545
△	10.265	.000	BD/LAP -14.250	BRF	14.0502
◇	12.192	24.920		VRP	12.5770
				ZRP	.0000
				SCALE	6.0000
					.0150

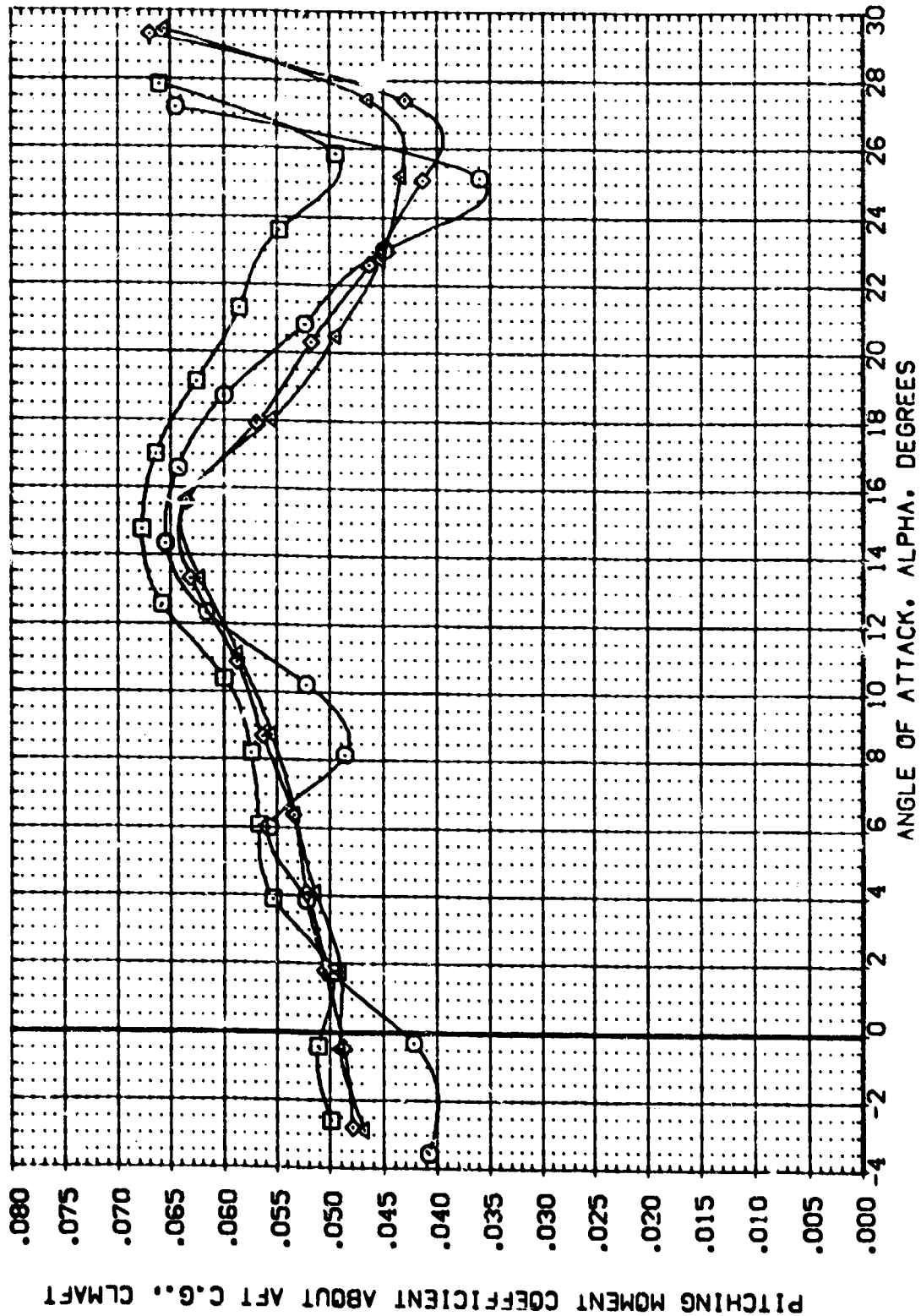


FIGURE 4 139B ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.ORB 3.(B19C7F5M4)(W107E23)(V7R5) (APP002)

SYMBOL		PARAMETRIC VALUES				REFERENCE INFORMATION			
○	RV/L	2.473	BETA	.000	WACH	.243	SREF	87.1560	50. IN.
□		4.812	ELEVTR	.000	AILRON	.000	LREF	19.3045	INCHES
◇		10.285	RLODR	.000	BDFLAP	-14.250	BREF	14.0502	INCHES
△		12.152	SPDRK	24.520			XMRP	12.5770	INCHES
							YMRP	6.0000	INCHES
							ZMRP	.0150	SCALE

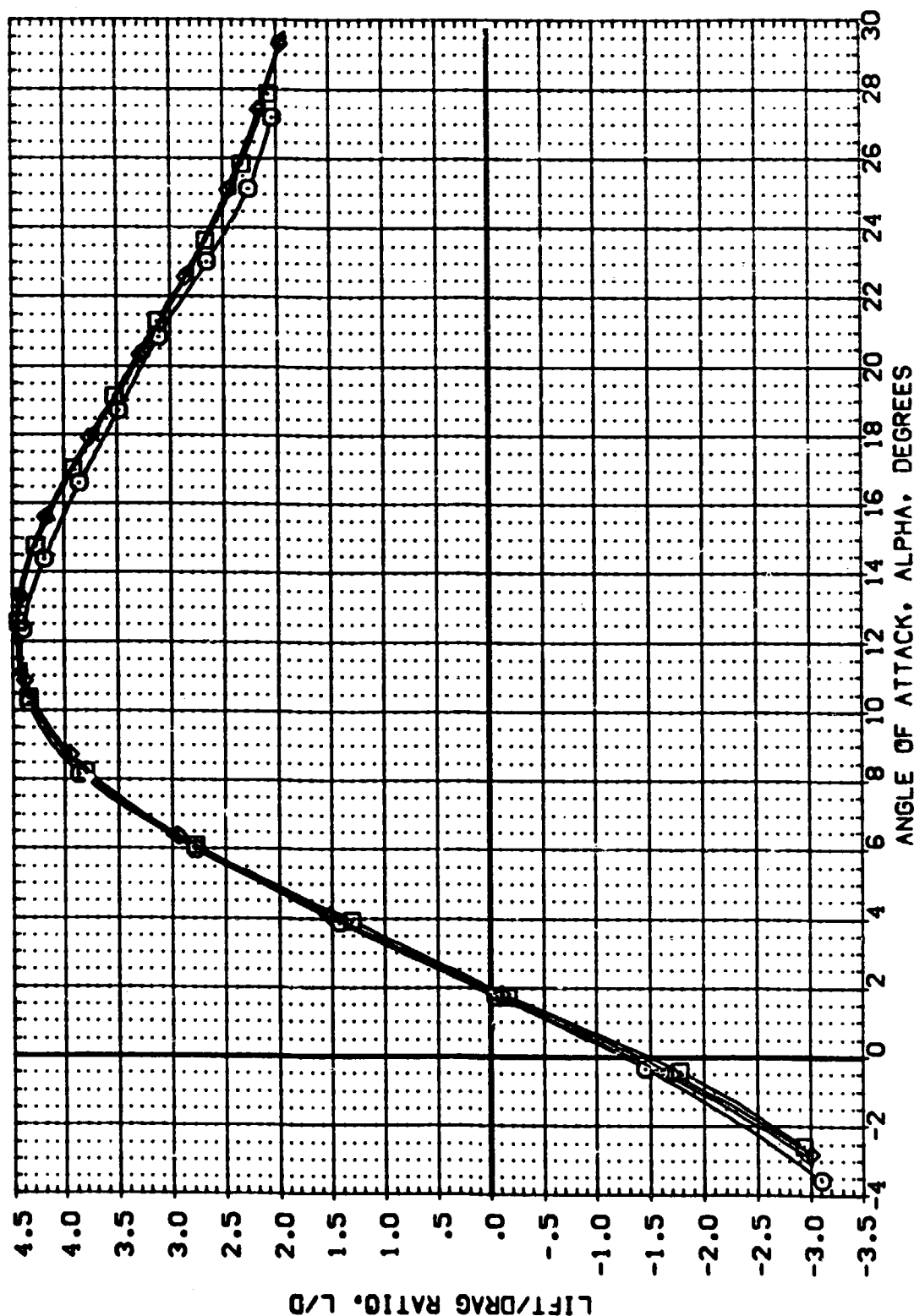


FIGURE 4 139B ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

DA17.1PT138.ORB 3.(B19C7F5M4)(W107E23)(V7R5) (APP002)

SYMBOL	PARAMETRIC VALUES	REFERENCE INFORMATION
□	2.473	REF 87.1360
□	4.812	LREF 19.3545
□	10.265	BREF 14.0502
□	12.192	XREF 12.5770
□		YREF .0000
□		ZREF .0000
□		SCALE .0150
□		SCALE

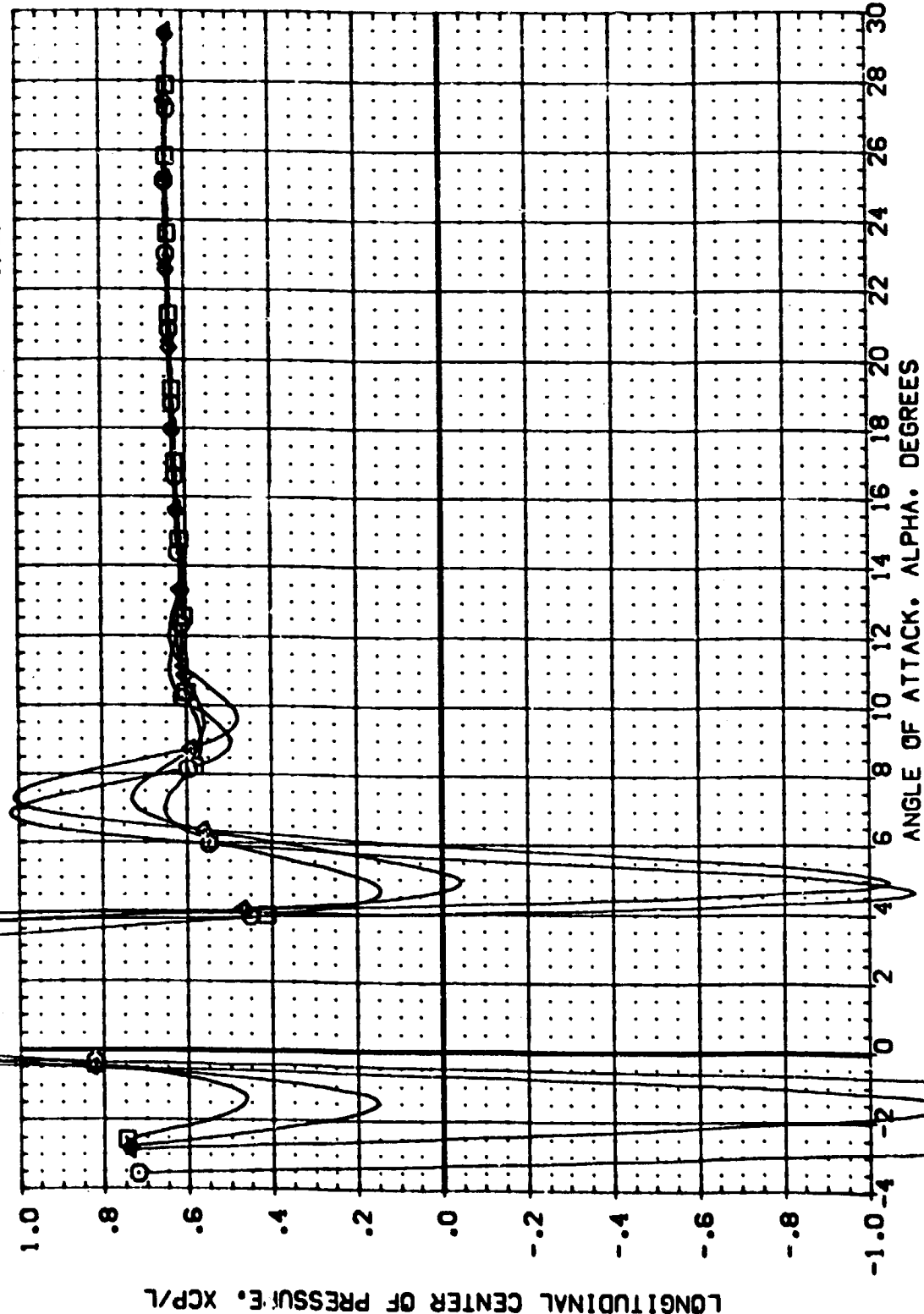


FIGURE 4 1398 ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

GA17.LTPT138.ORB 3.(B19C7F5M4)(W107E23)(V7R5) (APP002)

SYMBOL		PARAMETRIC VALUES				REFERENCE INFORMATION			
○	2.473	BETA	.000	MACH	.243	SREF	87.1500	50 IN.	NO-ES
□	4.812	ELEVTR	.000	AIRLON	.000	LREF	19.2545	19 IN.	NO-ES
◇	10.265	RUDDER	.000	BOFLAP	-14.750	BREF	14.0500	14 IN.	NO-ES
△	12.192	SPORBK	24.920			YREF	12.5770	12 IN.	NO-ES
						ZREF	.0000	0 IN.	NO-ES
						SCALE	6.0150	SCALE	SCALE

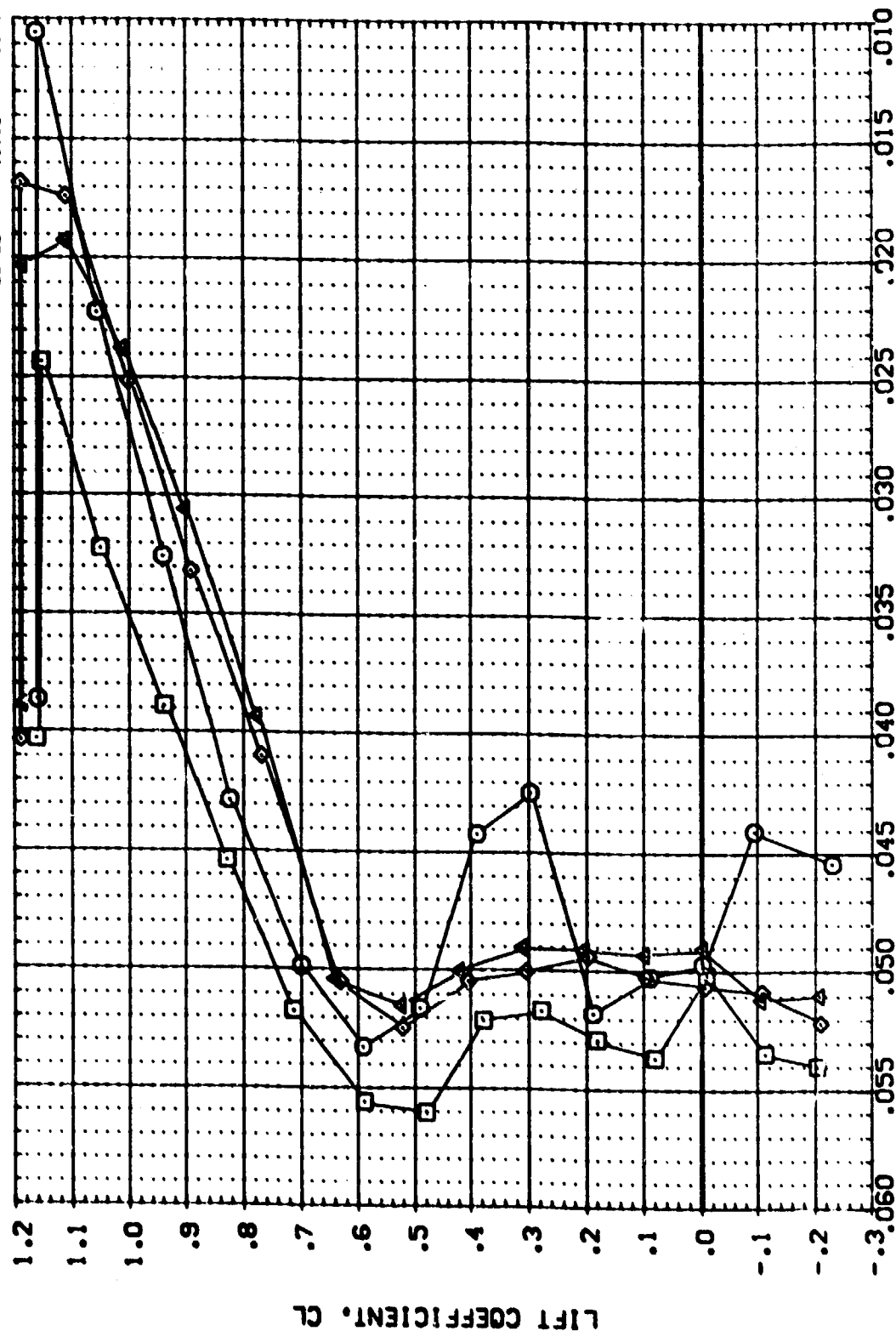


FIGURE 4 1398 ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.ORB 3.(B19C7F5M4)(W107E23)(V7R5) (APP002)

SYMBOL	RV/L	BETA	ELEVTR	AILRON	BOFLAP	PARAMETRIC VALUES	SREF	LREF	XMRP	YMRP	ZMRP	SCALE	REFERENCE INFORMATION	SO, IN.	IN.-ES	IN.-ES	IN.-ES	SCALE
□	2.473	.000	.000	.000	.243		67.1560	19.2545	14.0502	12.5770	6.0000	.0150						
◇	4.812	.000	.000	.000	.000													
△	10.265	.000	.000	.000	-14.250													
▽	12.192	24.920																

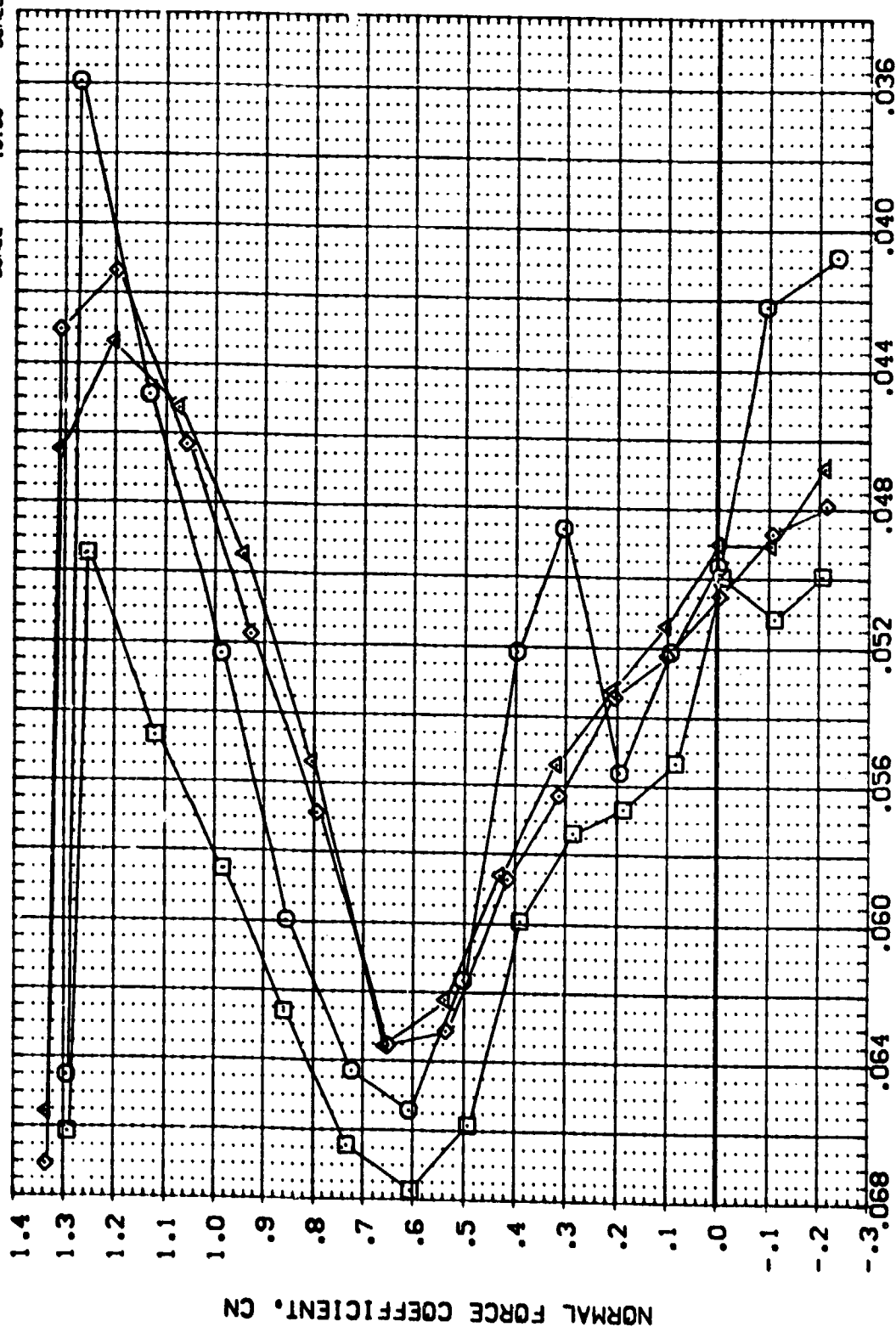


FIGURE 4 139B ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.L1PT138.ORB 3.(B19C7-5M4)(W107E23)(V7R5) (APP002)

SYMBOL		PARAMETRIC VALUES				REFERENCE INFORMATION			
2VL	BETA	.000	MACH	.243		SREF	87.1580	90.14	
4.812	ELEVTR	.000	AILRON	.000		LREF	19.3545	INOES	
10.265	RUDDER	.000	BDFLAP	-14.250		BREF	14.0502	INOES	
12.152	SPOBRK	24.920				YREF	12.5770	INOES	
						ZREF	6.0000	INOES	
						SCALE	.0150	SCALE	

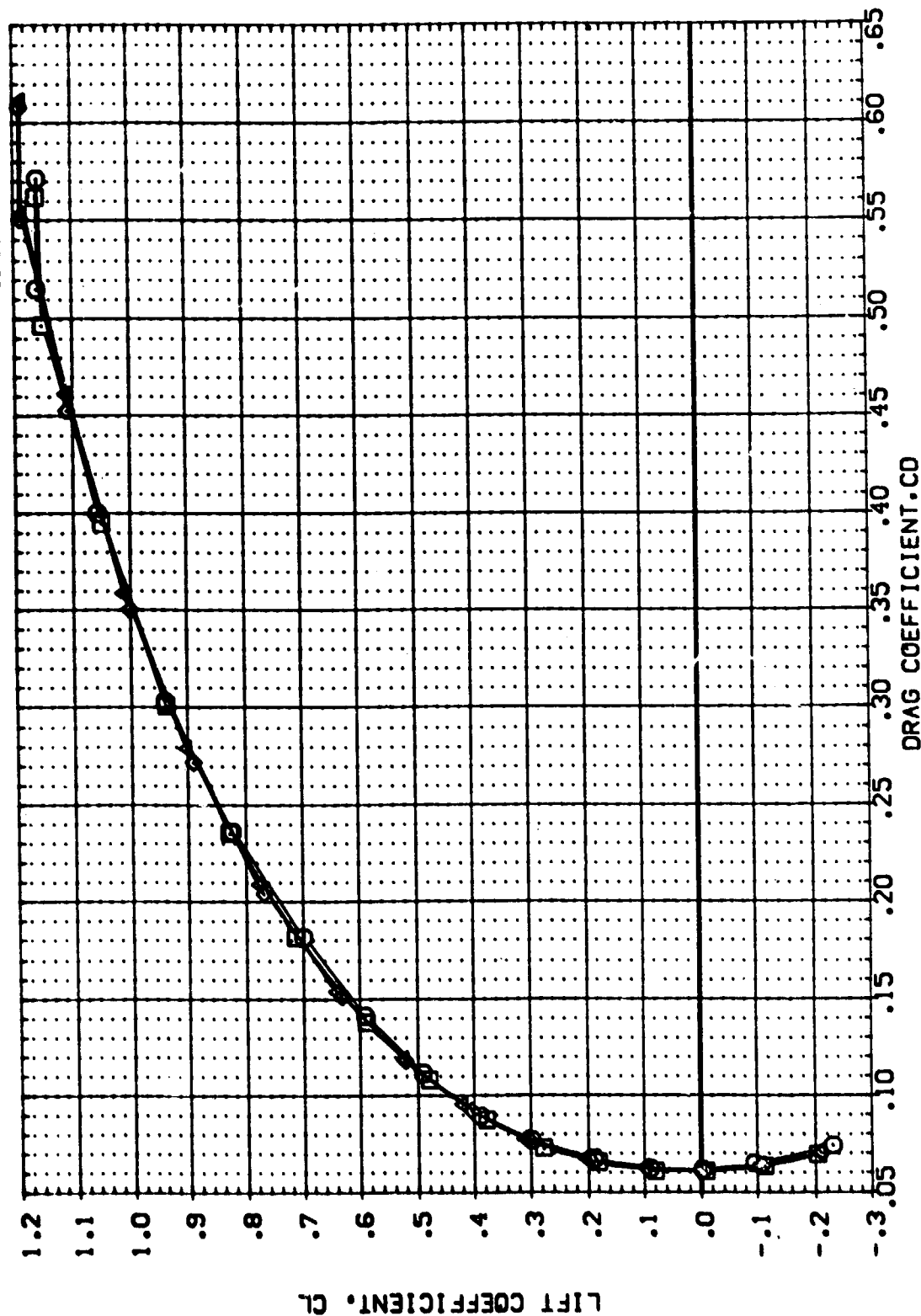


FIGURE 4 139B ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS



0A17.L1PT138.ORB 3.(B19C7F5M4)(W107E23)(V7R5) (RPP002)

PARAMETRIC VALUES		REFERENCE INFORMATION		
SYMBOL	RV/L	SYMBOL	INCHES	
□	2.473	LREF	87.1560	
○	4.812	BREF	19.3545	
◇	10.265	XTRP	14.0502	
△	12.152	YTRP	12.5770	
		ZTRP	.0000	
		SCALE	6.0000	
			.0150	
			SCALE	

BETA	.243
ELEVTR	.000
RUDDER	-14.250
SPOBRK	24.920
MACH	.000
AIRLON	.000
BDFLAP	.000

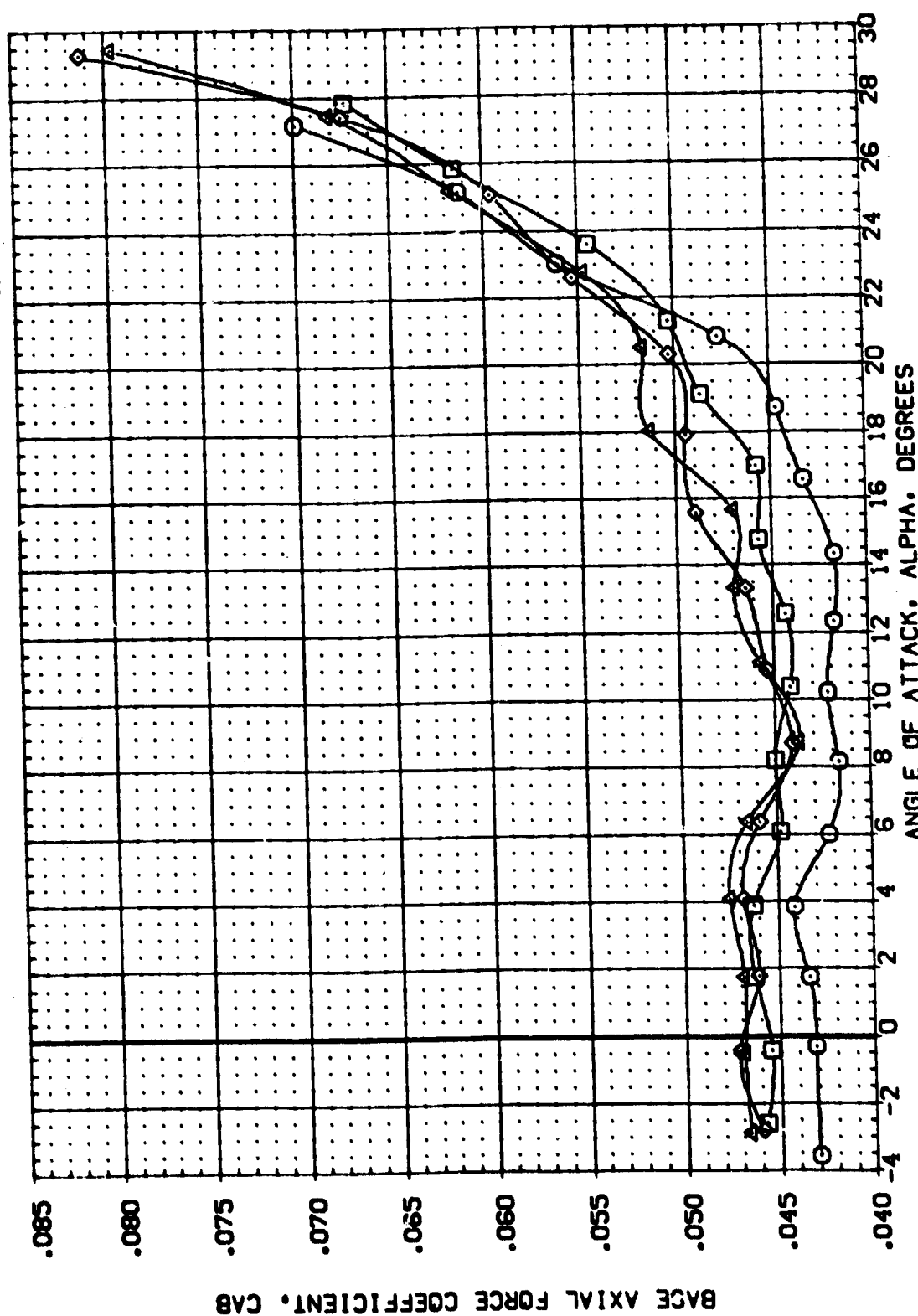


FIGURE 4 1398 ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.L1PT138.ORB 3.(B19C7F5M4)(W107E23)(V7R5) (APP007)

SYMBOL	RV/L	BETA	ELEVTR	RUDDER	SPOBRK	PARAMETRIC VALUES	MACH	REF	INCHES	SCALE
○	2.349	.000	.000	.000	.000	.246	.000	97.1300	50. IN	.0150
□	4.770	.000	.000	.000	.000	.000	.000	19.3545	INCHES	
△	10.121	.000	.000	.000	.000	.000	.000	14.0502	INCHES	
△	11.652	.000	.000	.000	.000	.000	.000	12.5770	INCHES	
								6.0000	INCHES	
								.0000	INCHES	
								.0150	SCALE	

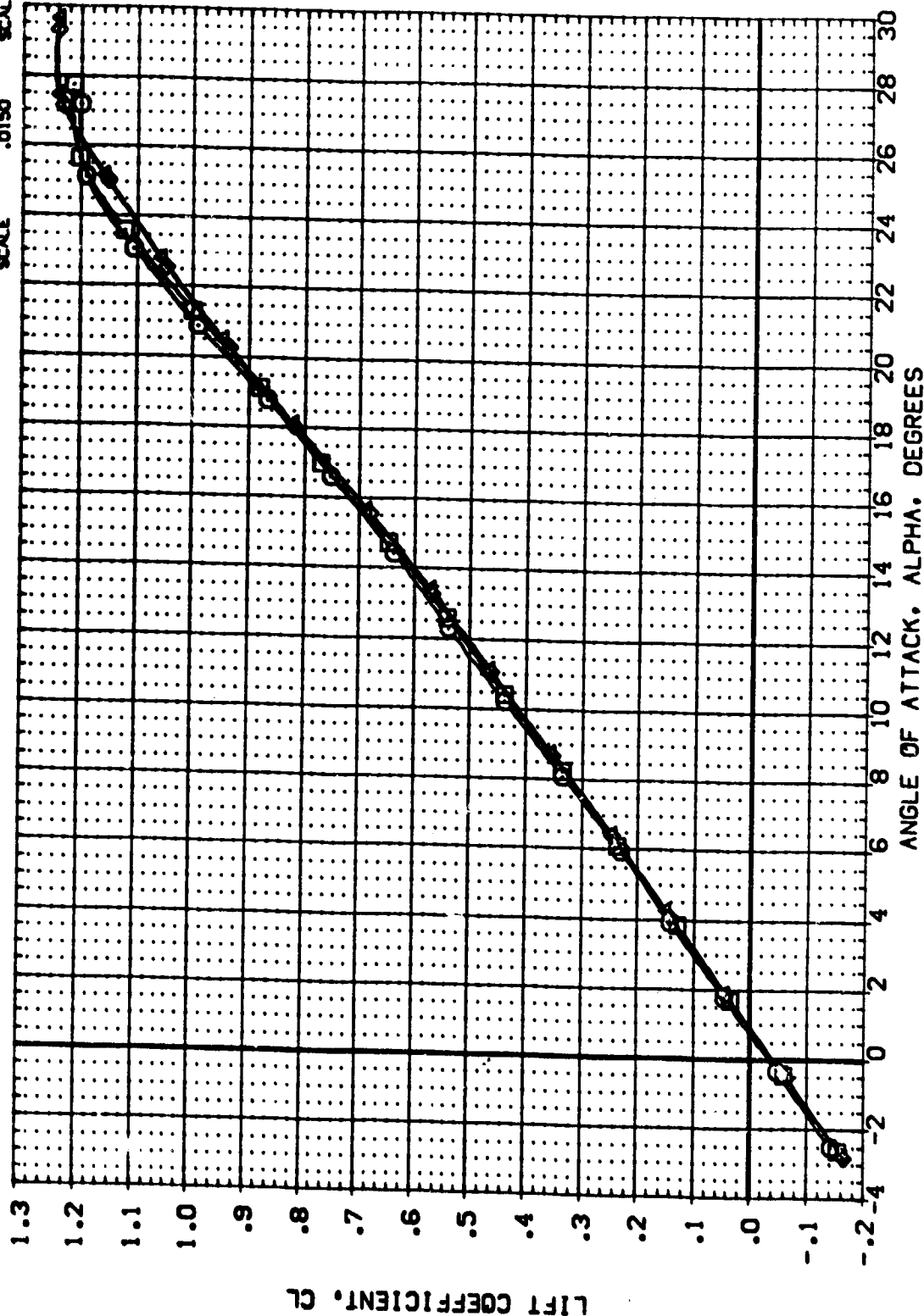


FIGURE 4 139B ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS



0A17.LTPT138.ORB 3.(B19C7F5M4)(W107E23)(V7R5) (APP007)

SYMBL	RV/L	PARAMETRIC VALUES				REFERENCE INFORMATION			
		BETA	ELEVTR	AILTRON	BOFLAP	SREF	LREF	50, IN.	INCHES
○	2.349	.000	.000	.000	.000	87.1560	19.3945	INCHES	INCHES
□	4.770	.000	.000	.000	.000	14.0502	12.5770	INCHES	INCHES
◇	10.121	.000	.000	.000	.000	6.0000	6.0000	INCHES	INCHES
△	11.662	.000	.000	.000	.000	.0150	.0150	SCALE	SCALE

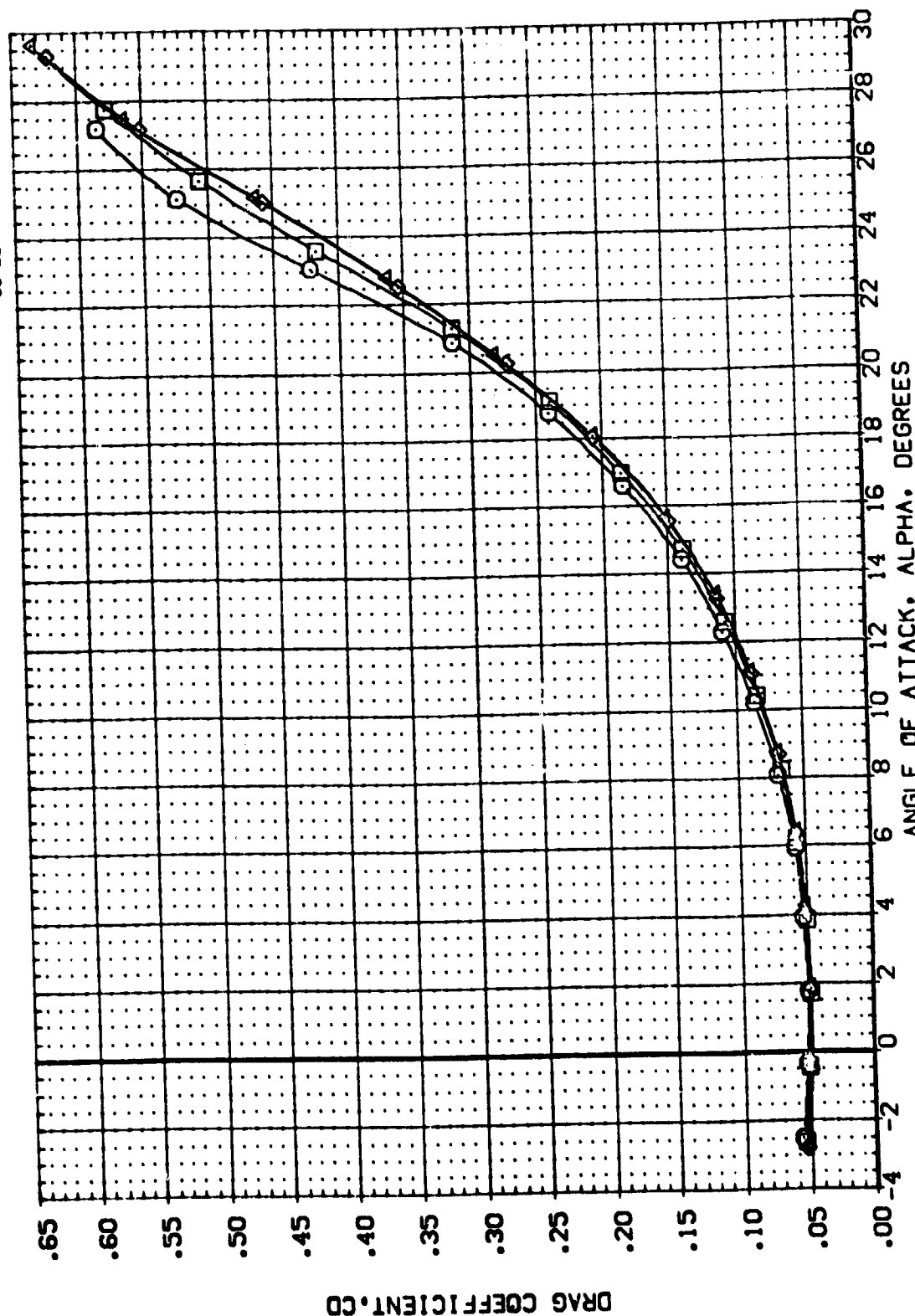


FIGURE 4 139B ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LIPT138.ORB 3.(B19C7F5M4)(W107F23)(V7R5) (APP007)

SYMBOL	RV/L	PARAMETRIC VALUES				REFERENCE INFORMATION			
		BETA	ELEVTR	AILRON	BOFLAP	SREF	LREF	50. IN.	INCHES
○	2.349	.000	.000	.000	.000	87.1560	19.3545	14.0502	INCHES
□	4.770	.000	.000	.000	.000	12.5770	6.0000	6.0000	INCHES
◇	10.121	.000	.000	.000	.000	6.0000	6.0000	6.0000	INCHES
△	11.662	.000	.000	.000	.000	6.0000	6.0000	6.0000	INCHES
						SCALE	.0150		SCALE

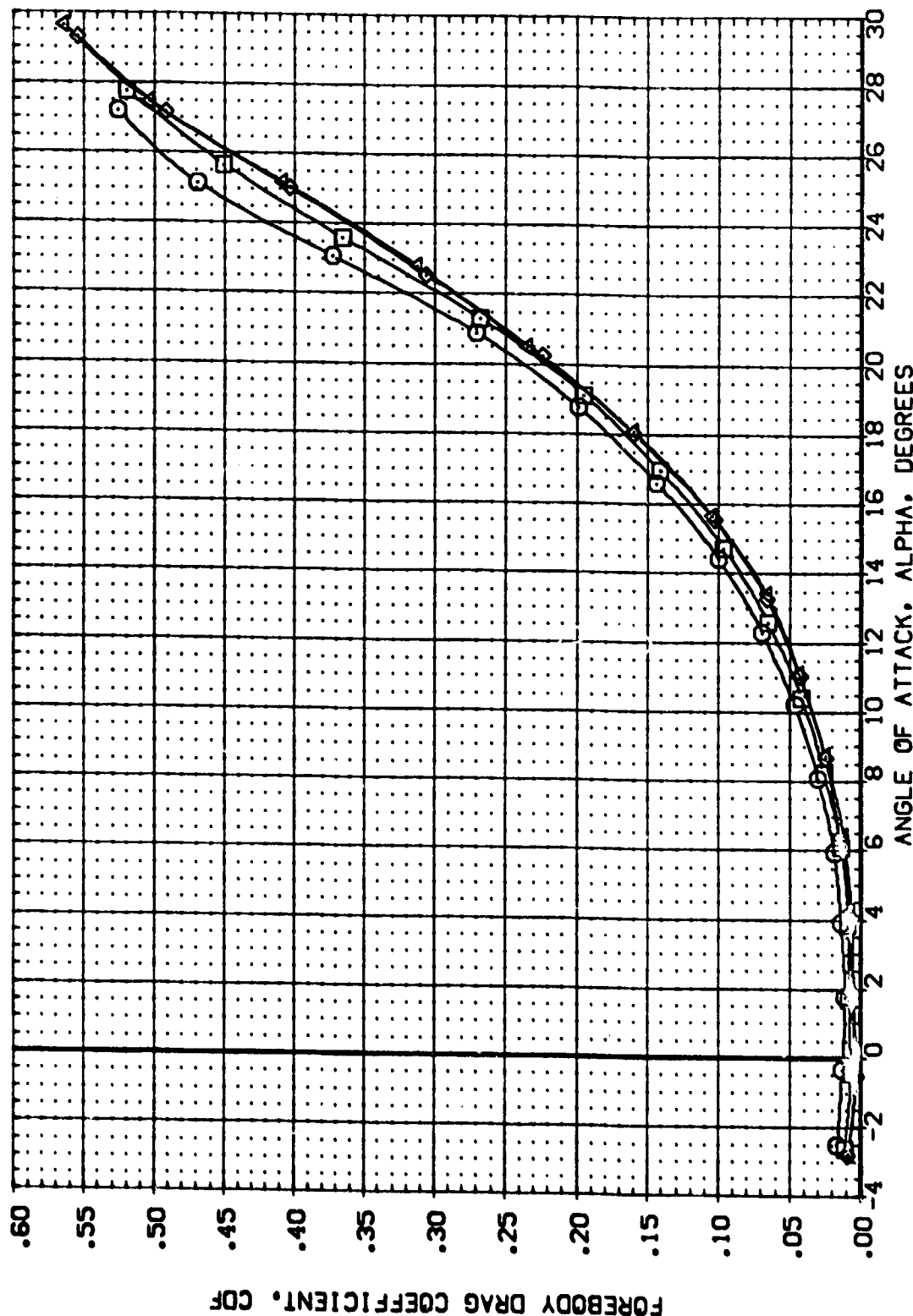


FIGURE 4 1398 ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS



0A17.LIPT138.ORB 3.(B19C7F5M4)(W107E23)(V7R5) (APP007)

PARAMETRIC VALUES		REFERENCE INFORMATION	
SYMBOL	VAL	SREF	50. IN.
○	2.349	LREF	19.3545
□	4.770	BREF	14.0502
◇	10.121	XTRP	12.5770
△	11.662	YTRP	6.0000
		ZTRP	0.0000
		SCALE	.0150

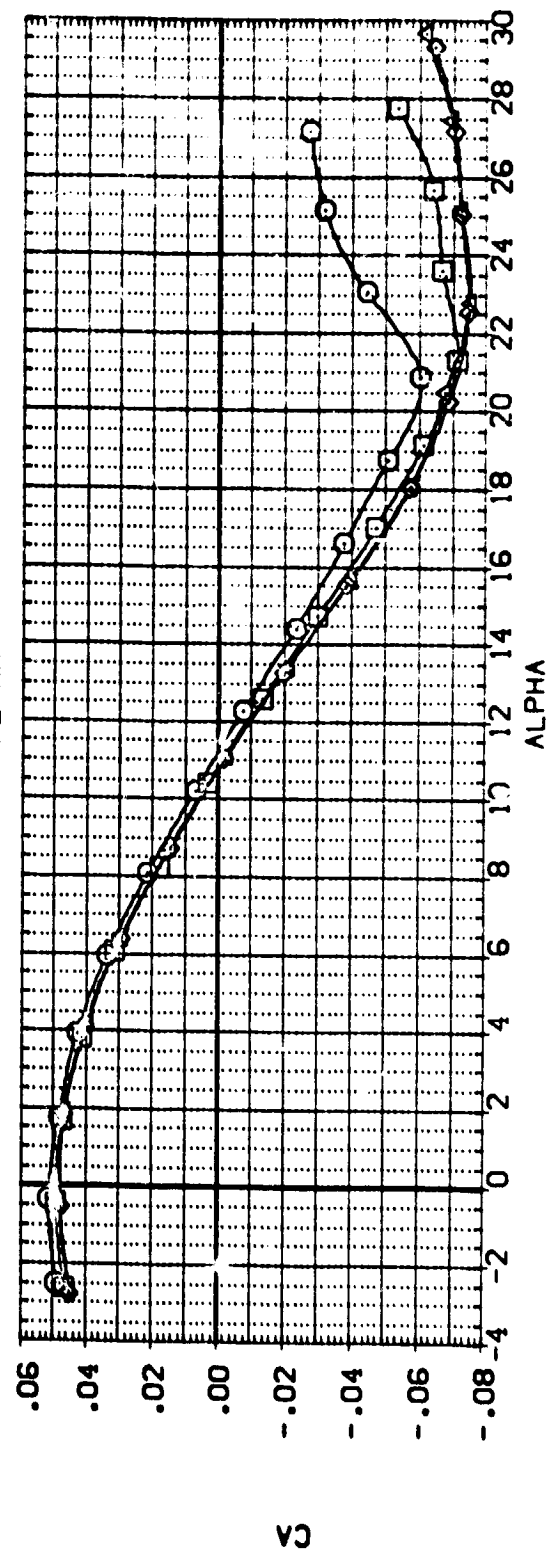
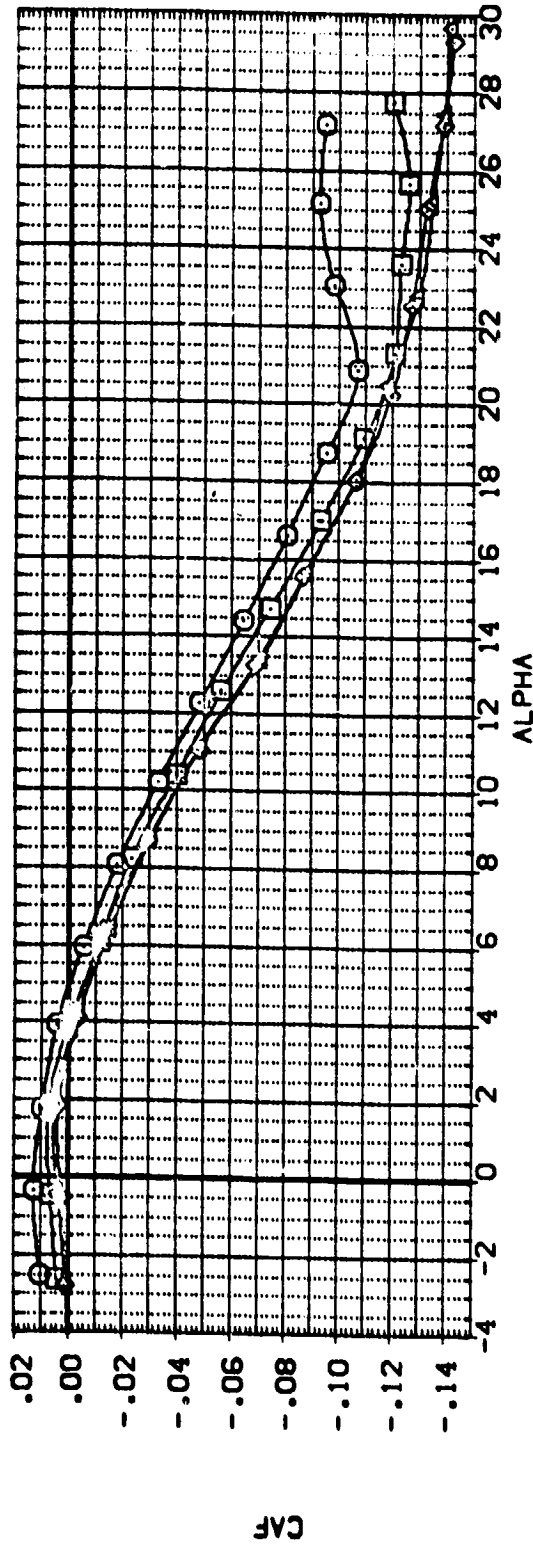


FIGURE 4 1398 ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LIPT138.ORB 3.(B19C7F5M4)(W107E23)(V7R5) (APP007)

SYMBOL RV/L BETA ELEVTR RUDDER SPODBK

PARAMETRIC VALUES

.000 MACH .246

.000 AILRON .000

.000 BOFLAP .000

REFERENCE INFORMATION

SREF 87.1560 SQ-IN.

LREF 19.3545 IN-ES

BREF 14.0502 IN-ES

YMRP 12.5770 IN-ES

ZMRP .0000 IN-ES

SCALE 6.0000 IN-ES

SCALE .0150 IN-ES

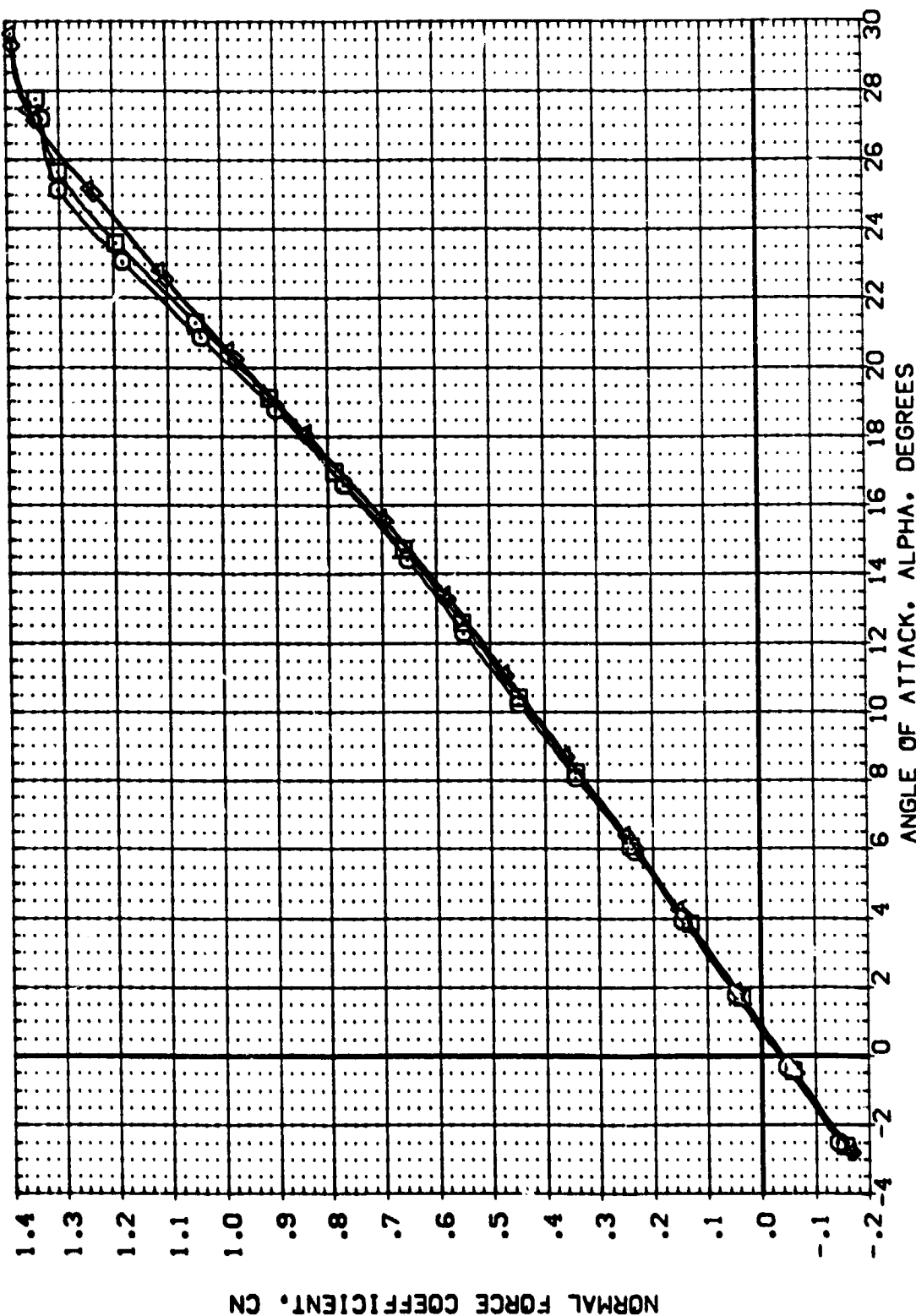


FIGURE 4 139B ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS



0A17.L1PT138.ORB 3-(B19C7F5M4)(W107E23)(V7R5) (APP007)

PARAMETRIC VALUES	
BETA	.246
ELEVTR	.000
RUDDER	.000
SPOBRK	.000

REFERENCE INFORMATION	
SREF	87.1560
LREF	19.3545
BREF	14.0502
XMRP	12.5770
YMRP	.0000
ZMRP	.0000
SCALE	.0150

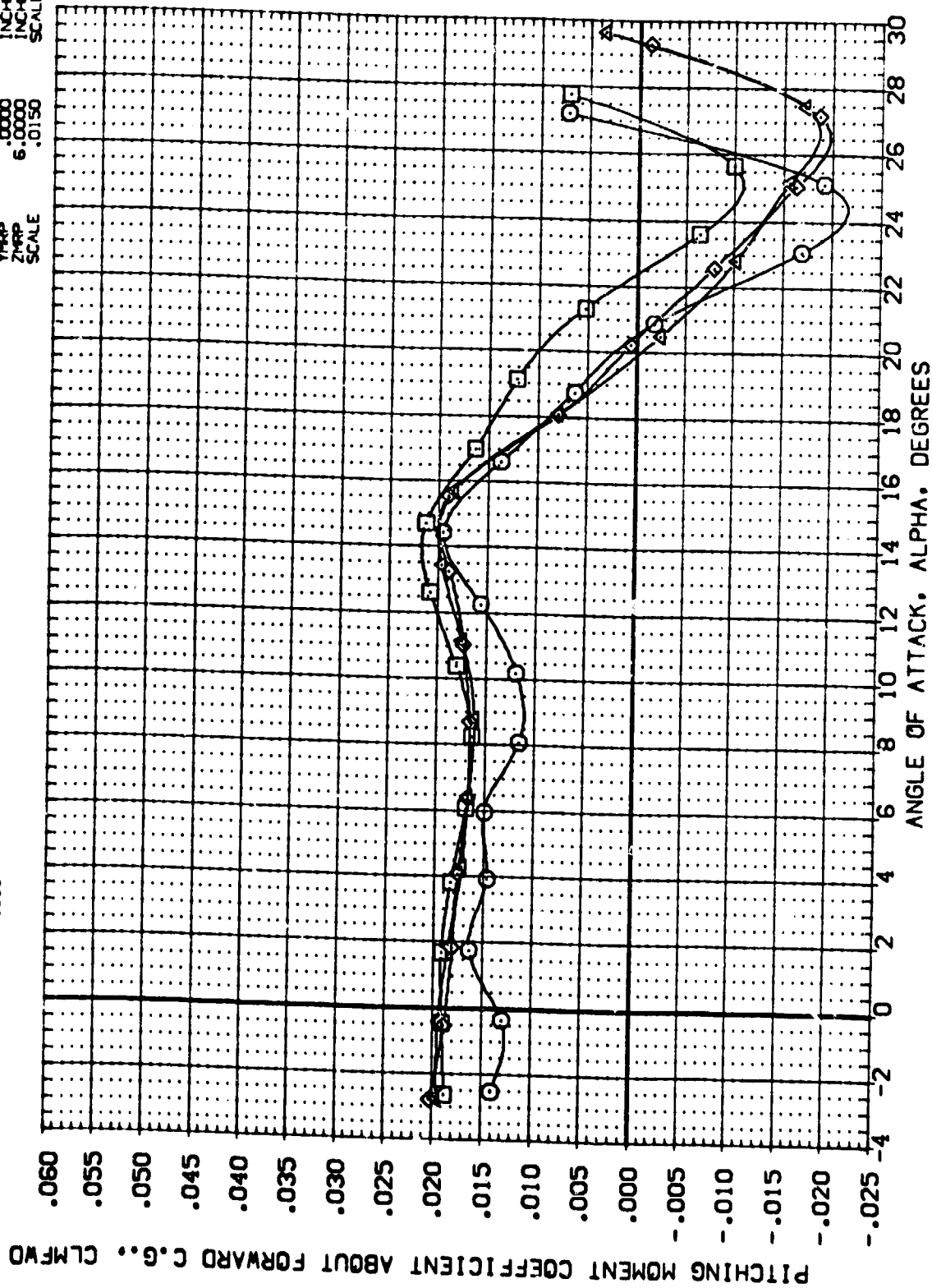


FIGURE 4 139B ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LIPT138.ORB 3.(B19C7F5M4)(W107E23;(V7R5) (APP007)

SYMBOL	RV/L	BETA	ELEVTR	RUDDER	S'DBRK	PARAMETRIC VALUES	REFERENCE INFORMATION
○	2.345	.000	.000	.000	.000	MACH	SREF 87.1560 SO. IN: 19.3545
□	4.770	.000	.000	.000	.000	AILRON	BREF 14.0502 INCHES
◇	10.121	.000	.000	.000	.000	BD'FLAP	XMRP 12.5770 INCHES
△	11.662	.000	.000	.000	.000		YMRP .0000 INCHES
							ZMRP 6.0000 INCHES
							SCALE .0150 SCALE

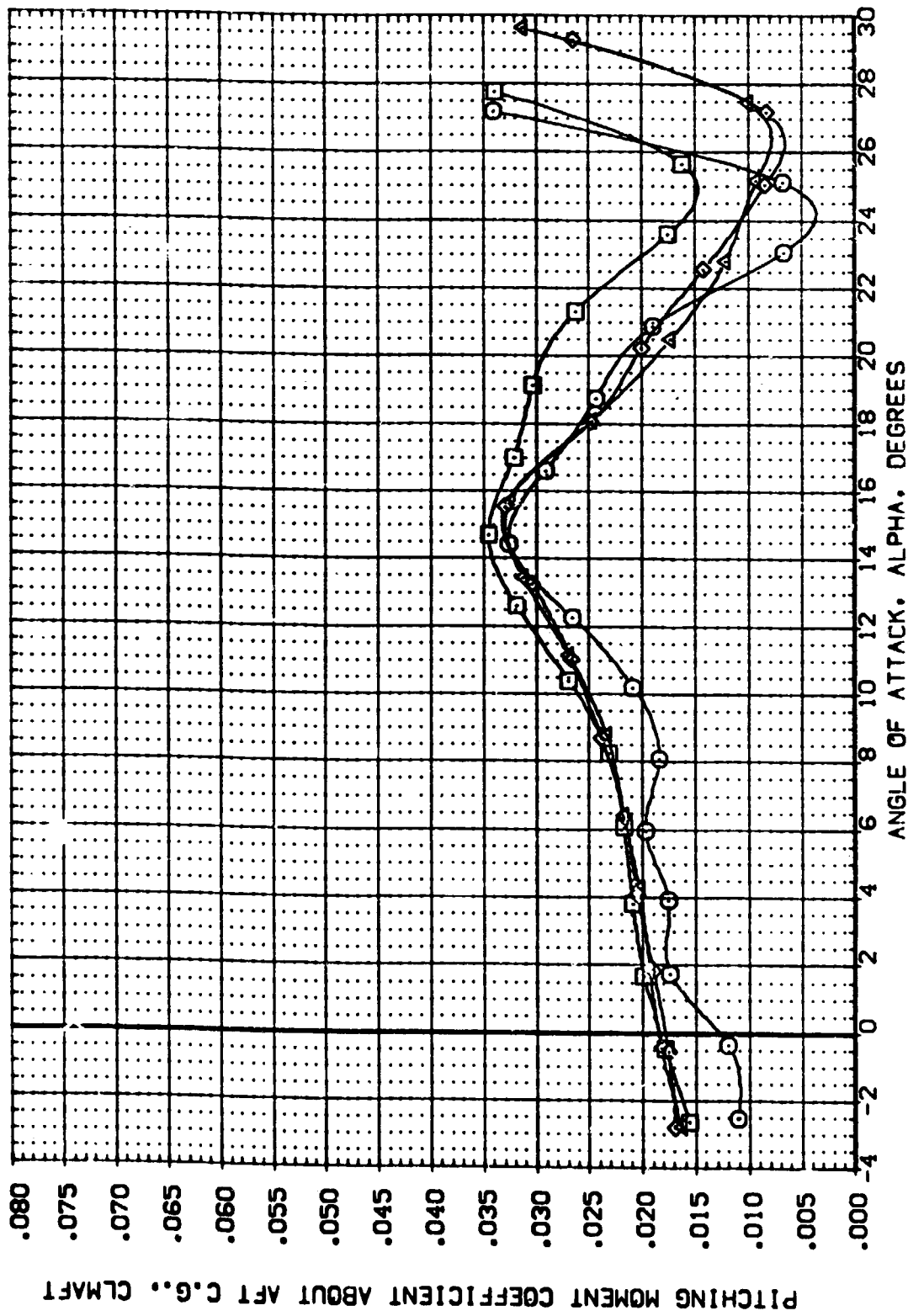


FIGURE 4 1398 ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS



CA17.LTPT138.ORB 3.(B19C7F5M4)(W107E23)(V7R5) (APP007)

SYMBOL	RV/L	BETA	ELEVTR	RUDER	SPDRBK	PARAMETRIC VALUES	REFERENCE INFORMATION
○	2.349					.000	SNREF 87.560
□	4.770					.000	LREF 9.3545
◇	10.121					.000	BRREF 4.0502
△	11.862					.000	YMRP 12.5770
						.000	YMRP 6.0000
						.000	ZMRP 6.0000
						.000	SCALE .0150
						.000	50. IN.
						.000	IN-OES
						.000	IN-OES
						.000	IN-OES
						.000	IN-OES

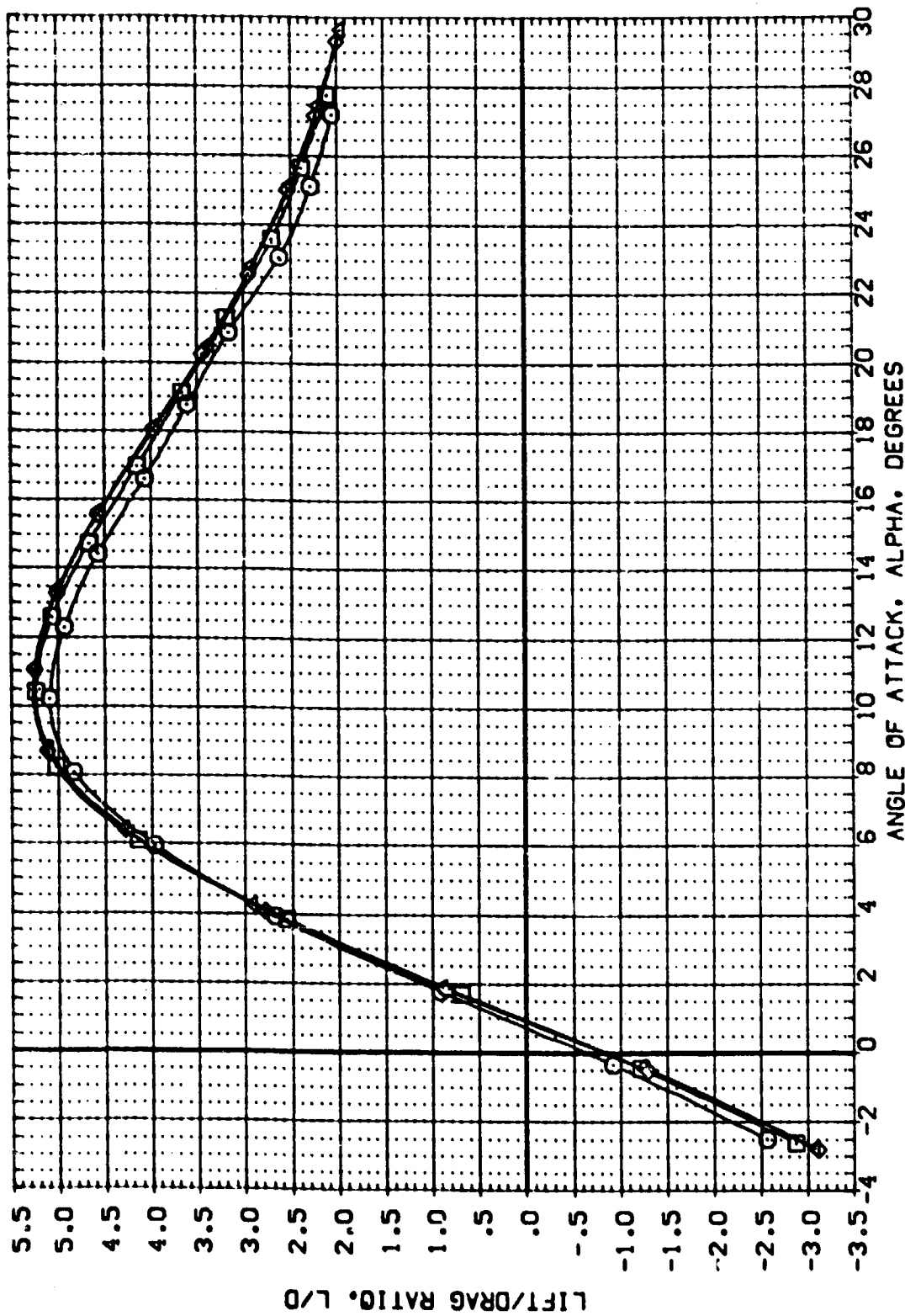


FIGURE 4 139B ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.ORB 3.(B19C7F5M4)(W107E23)(V7R5) (APP007)

SYMBOL		PARAMETRIC VALUES				REFERENCE INFORMATION			
RV/L	BETA	.000	MACH	.246	SREF	87.1560	50. IN.		
2.349	ELEVTR	.000	A/LR/N	.000	LREF	19.3545	INC-ES		
4.770	RUDDER	.000	BO/LAP	.000	BREF	14.0502	INC-ES		
10.121	SPDRBK	.000			XTRP	12.5770	INC-ES		
11.662					YTRP	.0000	INC-ES		
					ZTRP	6.0000	INC-ES		
					SCALE	.0150	SCALE		

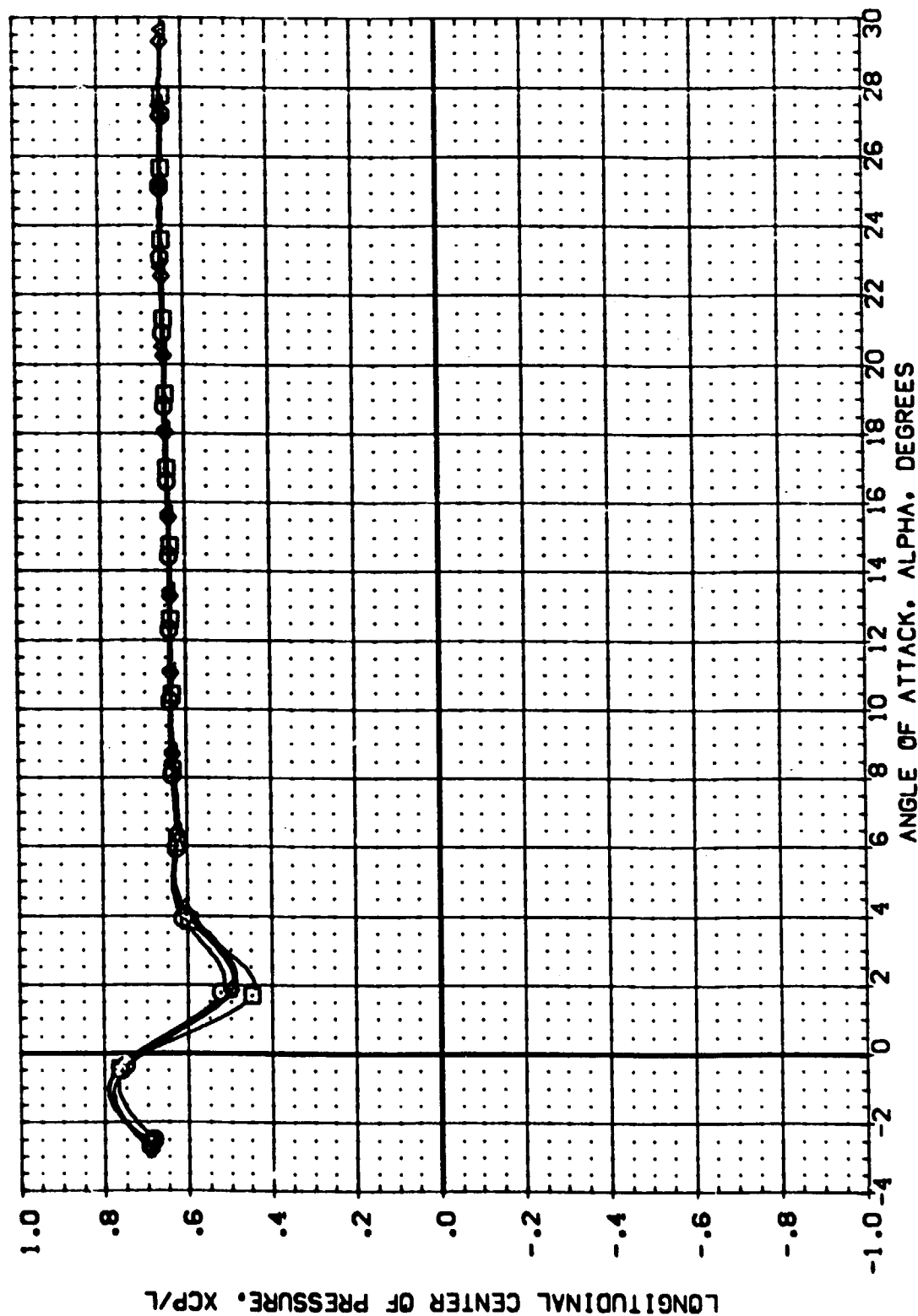


FIGURE 4 139B ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

(APP007)

SYMBOL	RN/L	BETA	ELEVTR	RUDER	SPOBRK	PARAMETRIC VALUES		REFERENCE INFORMATION
○	2.349	.000	MACH	.000	AIRCRN	.246	SREF	87.1560 SQ. IN.
□	4.77C	.000	AILEVR	.000	AILRON	.000	LREF	19.7545 INCHES
◇	10.71	.000	RUDER	.000	BDFLAP	.000	BREF	1.0562 INCHES
△	11.662	.000	SPOBRK	.000			XREF	12.5770 INCHES
							YREF	.0000 INCHES
							ZREF	6.0000 INCHES
							SCALE	.0150 SCALE

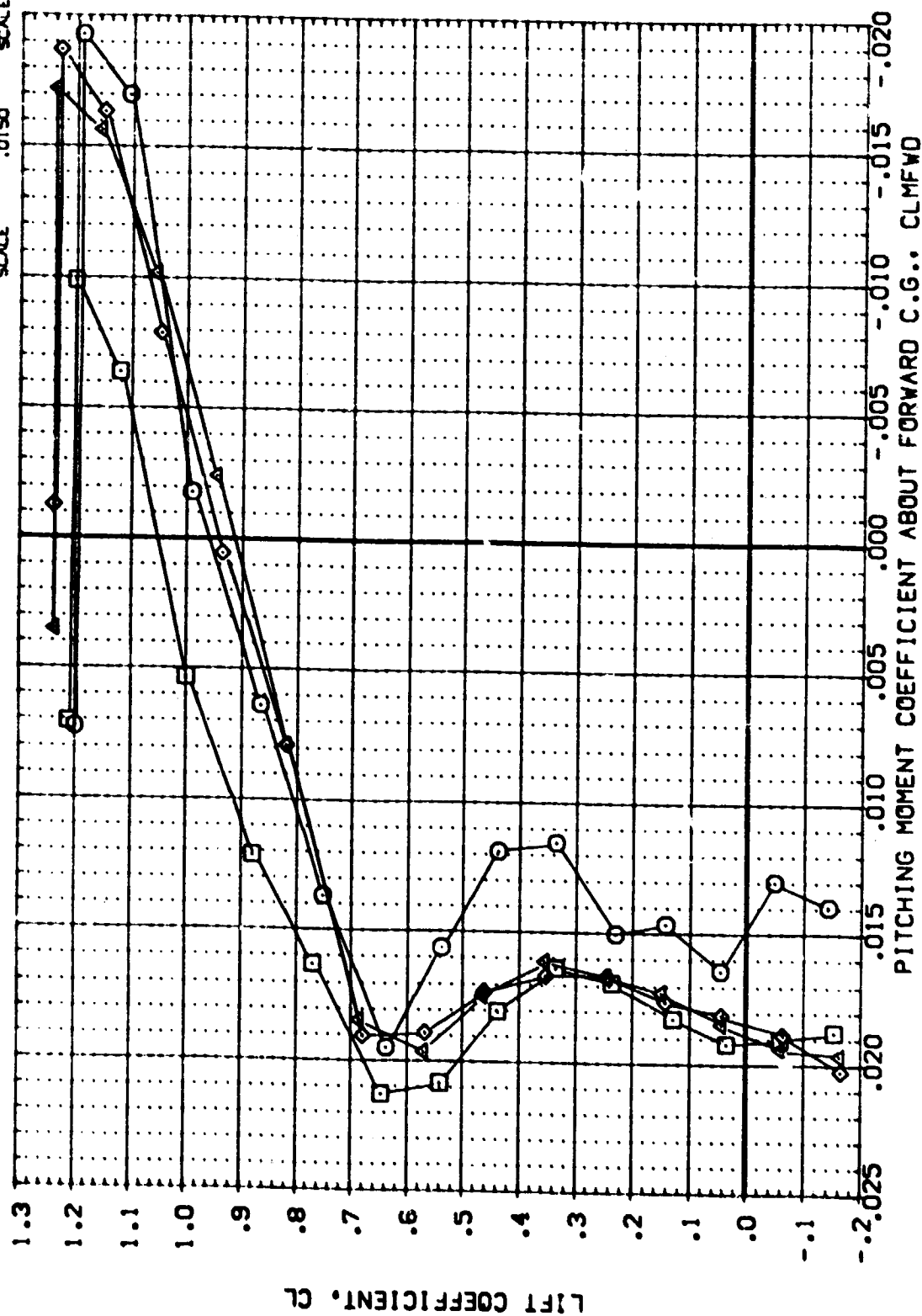
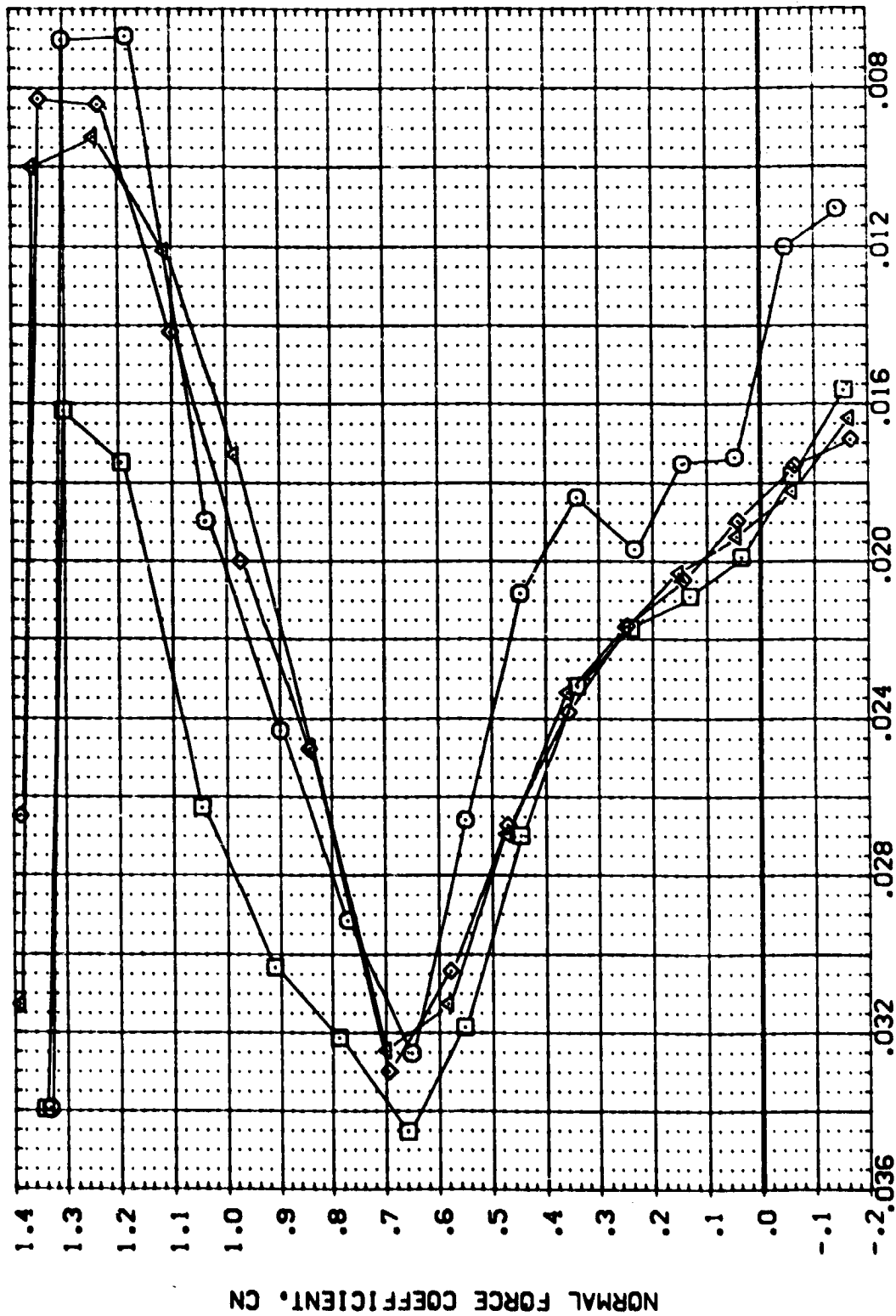


FIGURE 4 1398 ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

SYMBOL	RV/L	PARAMETRIC VALUES				REFERENCE INFORMATION			
		BETA	ELEVTR	AILTRON	BDFLAP	SNREF	LREF	DREF	SCALE
○	2.349	.000	.000	.000	.000	87.1560	19.3545	14.0502	50. IN.
□	10.121	.000	.000	.000	.000	12.5770	6.0000	6.0000	IN-ES
◇	11.662	.000	.000	.000	.000	12.5770	6.0000	6.0000	IN-ES
△						12.5770	6.0000	6.0000	IN-ES
						12.5770	6.0000	6.0000	SCALE



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FIGURE 4 1398 ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS



0A17.LTPT138.ORB 3.(B19C7F5M4)(W107E23)(V7R5) (APP007)

SYMBOL	RV/L	PARAMETRIC VALUES				REFERENCE INFORMATION			
		BETA	MACH	AILRON	BOFLAP	SREF	LREF	SD, IN.	INCHES
○	2.349	.000	.246	.000	.000	19.3345	14.0502	19.3345	INCHES
◇	4.770	.000	.000	.000	.000	12.5770	6.0000	12.5770	INCHES
△	10.121	.000	.000	.000	.000	6.0000	.0150	6.0000	INCHES
	11.652	.000	.000	.000	.000	6.0000	.0150	6.0000	INCHES
									SCALE

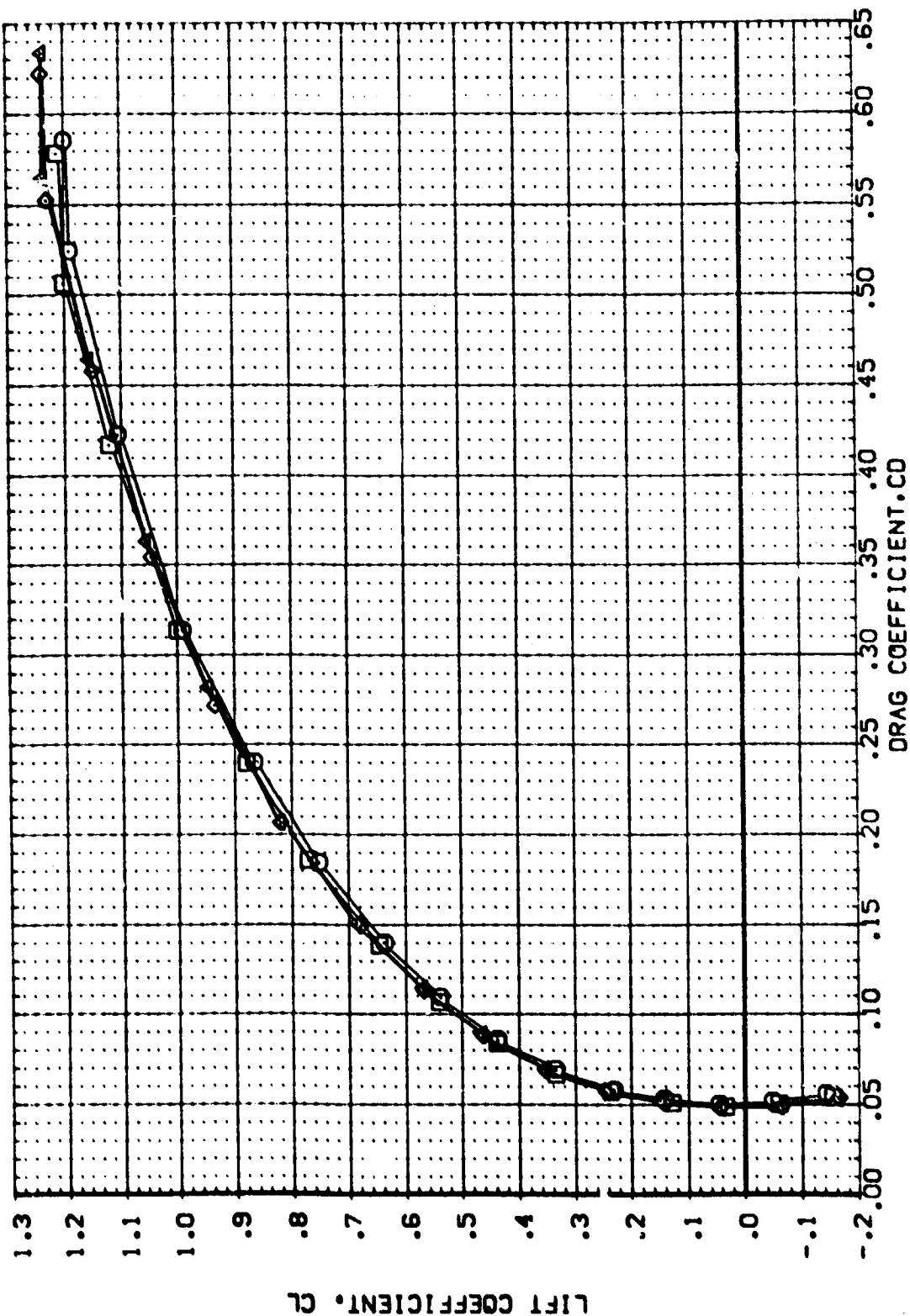


FIGURE 4 1398 ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.ORB 3.(B19C7F5M4)(W107E23)(V7R5) (RPP007)

SYMBOL	REV/L	PARAMETRIC VALUES				REFERENCE INFORMATION			
		BETA	ELEVTR	RUDDER	SPDRBK	SREF	LREF	BREF	XREF
□	2.349	.000	.000	.000	.000	97.1560	19.3545	14.0502	12.5770
◇	4.770	.000	.000	.000	.000	19.3545	14.0502	12.5770	12.5770
△	10.121	.000	.000	.000	.000	12.5770	12.5770	12.5770	12.5770
◇	11.662	.000	.000	.000	.000	12.5770	12.5770	12.5770	12.5770
						6.0000	6.0000	6.0000	6.0000
						SCALE	SCALE	SCALE	SCALE

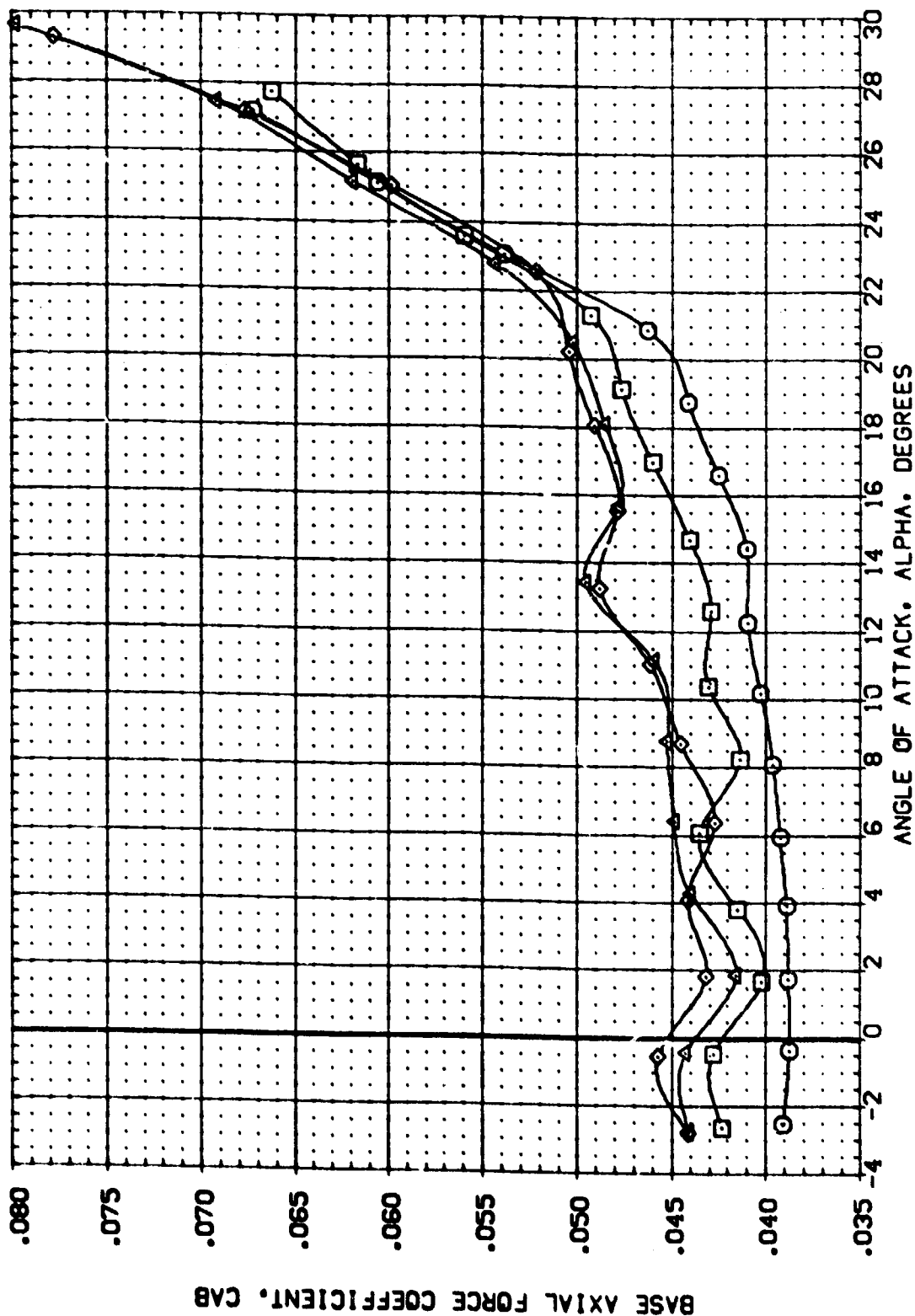


FIGURE 4 1398 ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BDFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION	SO.IN.
[APPO01]	DA17.LTPT138.DRB 3.(B1SC7F5M4)(V107E23)(V7R5)	14.700	-14.250	24.920	.000	SREF 87.1560	INCHES
[APPO02]	DA17.LTPT138.DRB 3.(B1SC7F5M4)(V107E23)(V7R5)	11.100	-14.250	24.920	.000	LREF 19.3545	INCHES
[APPO03]	DA17.LTPT138.DRB 3.(B1SC7F5M4)(V107E23)(V7R5)	5.600	-14.250	24.920	.000	BREF 14.0502	INCHES
[APPO04]	DA17.LTPT138.DRB 3.(B1SC7F5M4)(V107E23)(V7R5)	.000	-14.250	24.920	.000	XMPP 12.5770	INCHES
[APPO05]	DA17.LTPT138.DRB 3.(B1SC7F5M4)(V107E23)(V7R5)	-11.800	-14.250	24.920	.000	YMPP 6.0000	INCHES
[APPO06]	DA17.LTPT138.DRB 3.(B1SC7F5M4)(V107E23)(V7R5)	-24.100	-14.250	24.920	.000	ZMPP 6.0000	INCHES
						SCALE .0150	SCALE

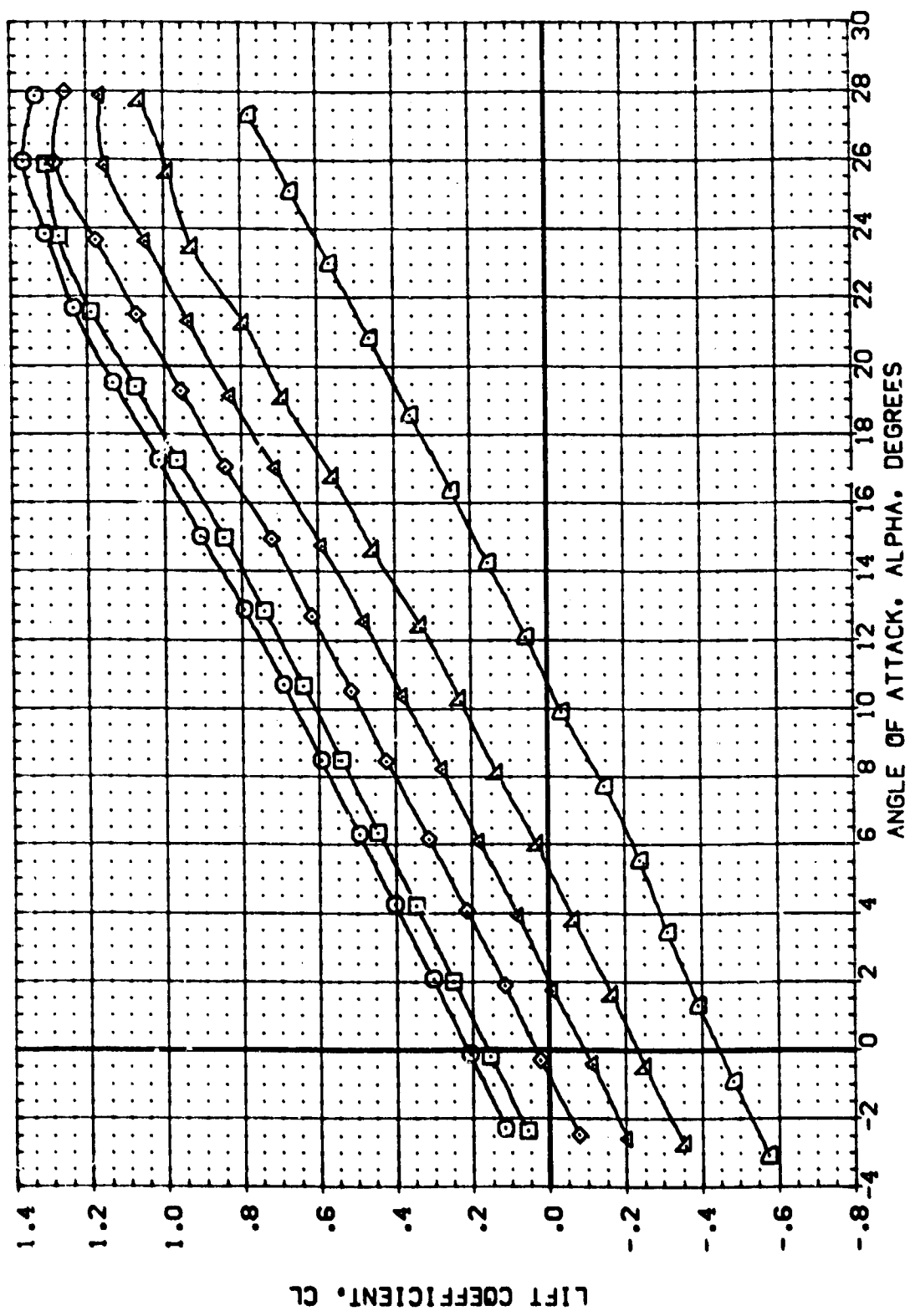


FIGURE 5 139B ORBITER ELEVON DEFLECTION EFFECTS

(AJRN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
[APPO018]	DA17.LTPT138.DRB 3.(819C7F5M4)(V107E23)(V7RS)	14.700	-14.250	24.520	.000	SREF 87.1560 SO.IN.
[APPO019]	DA17.LTPT138.DRB 3.(819C7F5M4)(V107E23)(V7RS)	11.100	-14.250	24.520	.000	LREF 19.3545 INCHES
[APPO020]	DA17.LTPT138.DRB 3.(819C7F5M4)(V107E23)(V7RS)	5.600	-14.250	24.520	.000	BREF 14.0502 INCHES
[APPO021]	DA17.LTPT138.DRB 3.(819C7F5M4)(V107E23)(V7RS)	.000	-14.250	24.520	.000	YREF 12.5770 INCHES
[APPO022]	DA17.LTPT138.DRB 3.(819C7F5M4)(V107E23)(V7RS)	-11.800	-14.250	24.520	.000	ZREF 6.0000 INCHES
[APPO023]	DA17.LTPT138.DRB 3.(819C7F5M4)(V107E23)(V7RS)	-24.100	-14.250	24.520	.000	SCALE .0150

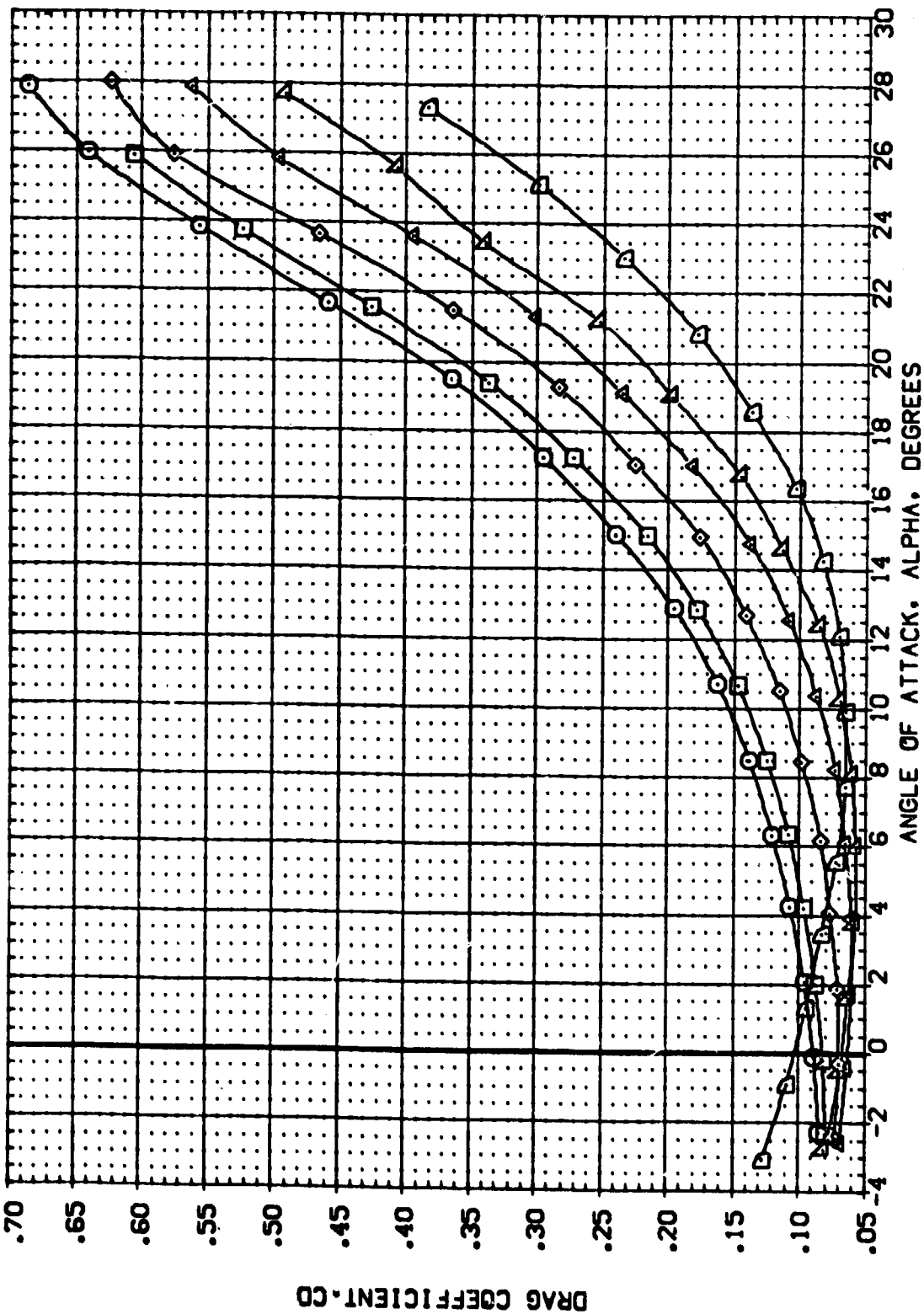


FIGURE 5 1398 ORBITER ELEVON DEFLECTION EFFECTS

(A:RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPDRBK	RUDDER	REFERENCE INFORMATION
[APPO18]	DA17.LTPT138.DRB 3.(B19CTF5M4)(V107E23)(V7R5)	14.700	-14.250	24.920	.000	SREF 87.1560 SO.IN:
[APPO19]	DA17.LTPT138.DRB 3.(B19CTF5M4)(V107E23)(V7R5)	11.100	-14.250	24.920	.000	LREF 19.3545 INC-ES
[APPO17]	DA17.LTPT138.DRB 3.(B19CTF5M4)(V107E23)(V7R5)	5.600	-14.250	24.920	.000	BREF 14.0502 INC-ES
[APPO02]	DA17.LTPT138.DRB 3.(B19CTF5M4)(V107E23)(V7R5)	.000	-14.250	24.920	.000	XMRP 12.5770 INC-ES
[APPO03]	DA17.LTPT138.DRB 3.(B19CTF5M4)(V107E23)(V7R5)	-11.800	-14.250	24.920	.000	YMRP 6.0000 INC-ES
		-24.100	-14.250	24.920	.000	ZMRP 6.0000 INC-ES
						SCALE .0150 SCALE

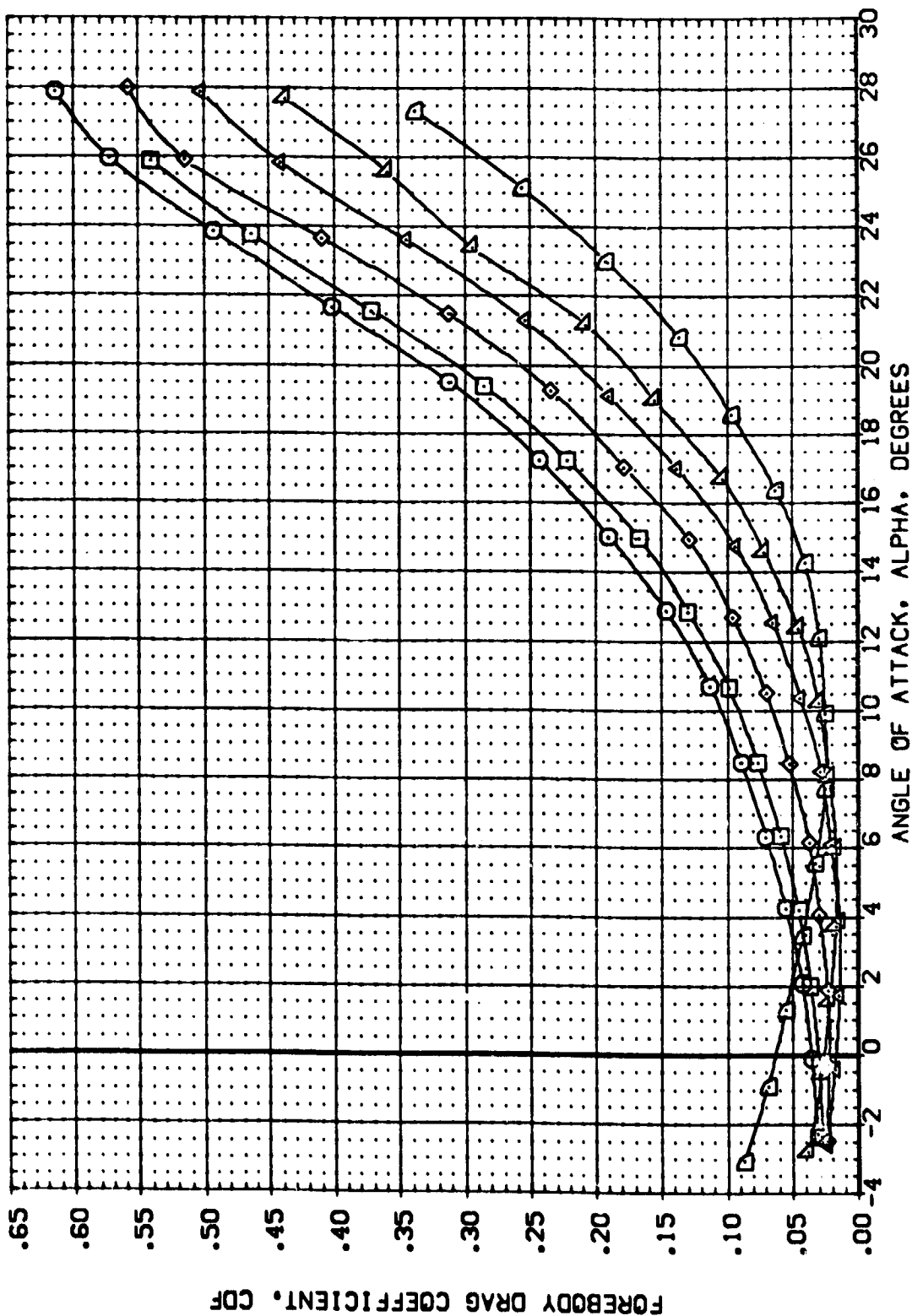


FIGURE 5 139B ORBITER ELEVON DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BDFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
[APPO18]	DA17ALPT138.0RB 3.(81SC7F5M4)(V107E23)(V7R5)	14.700	-14.250	24.920	.000	SREF 87.1560 50.1N
[APPO04]	DA17ALPT138.0RB 3.(81SC7F5M4)(V107E23)(V7R5)	11.100	-14.250	24.920	.000	LREF 19.2545 INCHES
[APPO17]	DA17ALPT138.0RB 3.(81SC7F5M4)(V107E23)(V7R5)	5.600	-14.250	24.920	.000	BREF 14.0512 INCHES
[APPO02]	DA17ALPT138.0RB 3.(81SC7F5M4)(V107E23)(V7R5)	.000	-14.250	24.920	.000	XMRP 12.5770 INCHES
[APPO19]	DA17ALPT138.0RB 3.(81SC7F5M4)(V107E23)(V7R5)	-11.800	-14.250	24.920	.000	YMRP 6.0000 INCHES
[APPO03]	DA17ALPT138.0RB 3.(81SC7F5M4)(V107E23)(V7R5)	-24.100	-14.250	24.920	.000	ZMRP .0150 SCALE

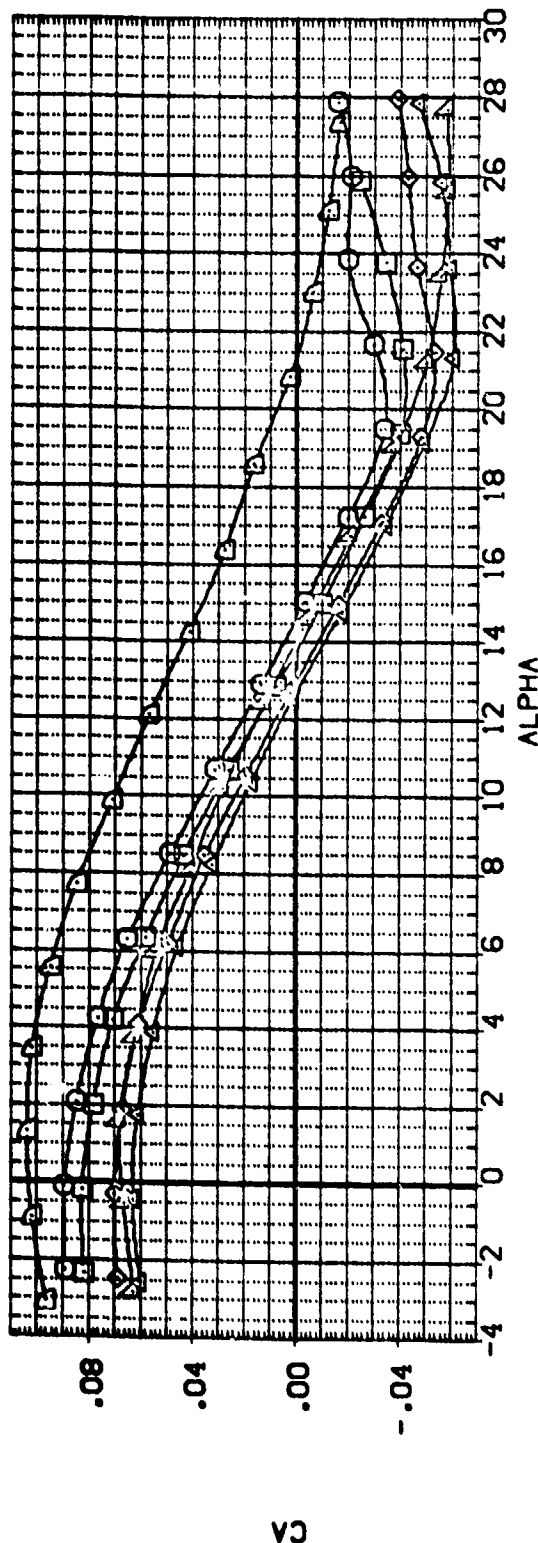
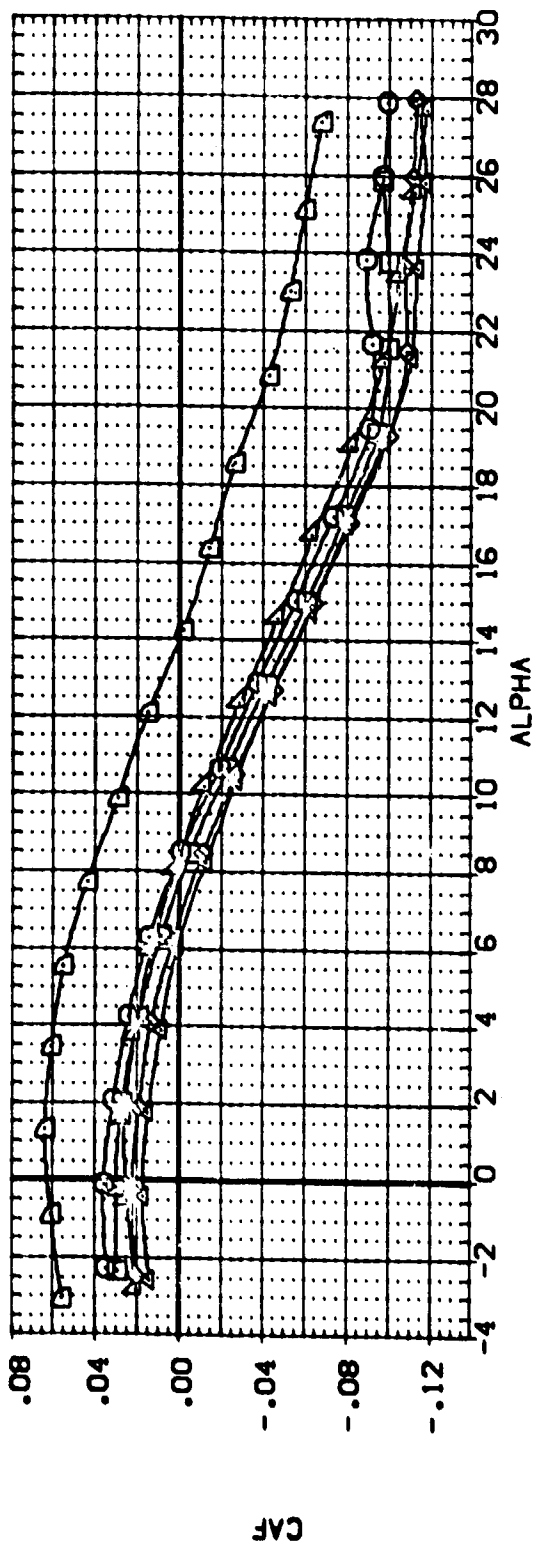


FIGURE 5 139B ORBITER ELEVON DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPODBRK	RUDDER	REFERENCE INFORMATION
CA17ALPT138.0RB 3. (B19C7F5M4) (V107E23) (V7RS)		14.700	-14.250	24.920	.000	SREF 87.1560 SQ.IN. INCHES
CA17ALPT138.0RB 3. (B19C7F5M4) (V107E23) (V7RS)		11.100	-14.250	24.920	.000	LREF 19.3545 INCHES
CA17ALPT138.0RB 3. (B19C7F5M4) (V107E23) (V7RS)		5.600	-14.250	24.920	.000	BREF 12.5770 INCHES
CA17ALPT138.0RB 3. (B19C7F5M4) (V107E23) (V7RS)		.000	-14.250	24.920	.000	XMRP .0000 INCHES
CA17ALPT138.0RB 3. (B19C7F5M4) (V107E23) (V7RS)		-11.800	-14.250	24.920	.000	ZMRP .0000 INCHES
CA17ALPT138.0RB 3. (B19C7F5M4) (V107E23) (V7RS)		-24.100	-14.250	24.920	.000	SCALE .0150 SCALE

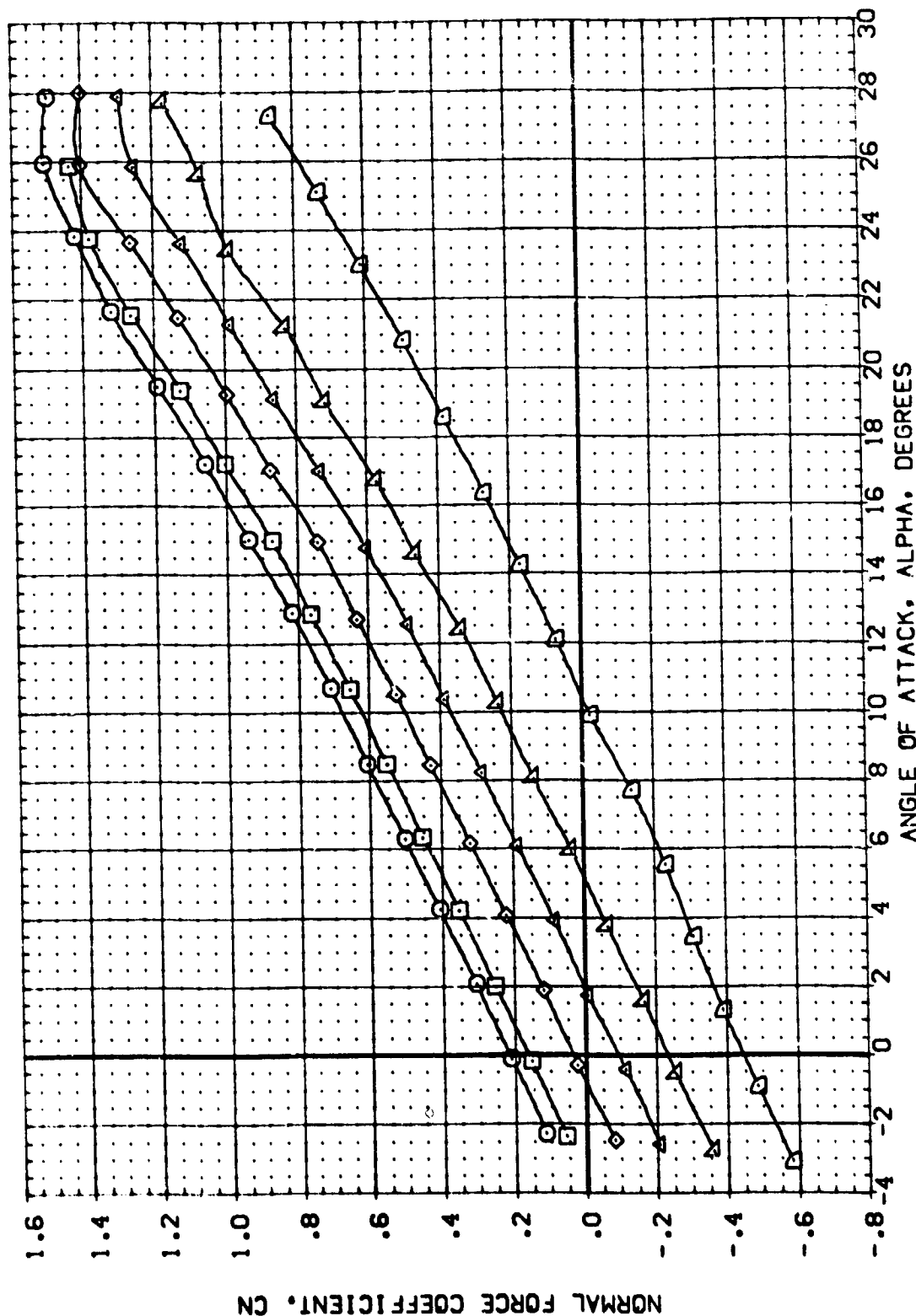


FIGURE 5 1398 ORBITER ELEVON DEFLECTION EFFECTS

CAJRN/L = 4.70

DATA SET SYMBOL: α

CONFIGURATION DESCRIPTION:

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BDLAP	SPDRBK	RUDDER	REFERENCE INFORMATION
[APPO18]	DA17,LTPT1,38,ORB 3,(B1SC7F5M4)(V107E23)(V7RS)	14.700	-14.250	24.920	.000	SREF 87.1560 SO.IN. INCHES
[APPO04]	DA17,LTPT1,38,ORB 3,(B1SC7F5M4)(V107E23)(V7RS)	11.100	-14.250	24.920	.000	LREF 19.3545 INCHES
[APPO17]	DA17,LTPT1,38,ORB 3,(B1SC7F5M4)(V107E23)(V7RS)	5.600	-14.250	24.920	.000	BREF 14.0502 INCHES
[APPO02]	DA17,LTPT1,38,ORB 3,(B1SC7F5M4)(V107E23)(V7RS)	.000	-14.250	24.920	.000	XMRP 12.5770 INCHES
[APPO15]	DA17,LTPT1,38,ORB 3,(B1SC7F5M4)(V107E23)(V7RS)	-11.800	-14.250	24.920	.000	YMRP 6.0000 INCHES
[APPO03]	DA17,LTPT1,38,ORB 3,(B1SC7F5M4)(V107E23)(V7RS)	-24.100	-14.250	24.920	.000	ZMRP 6.0000 INCHES

SCALE .0150

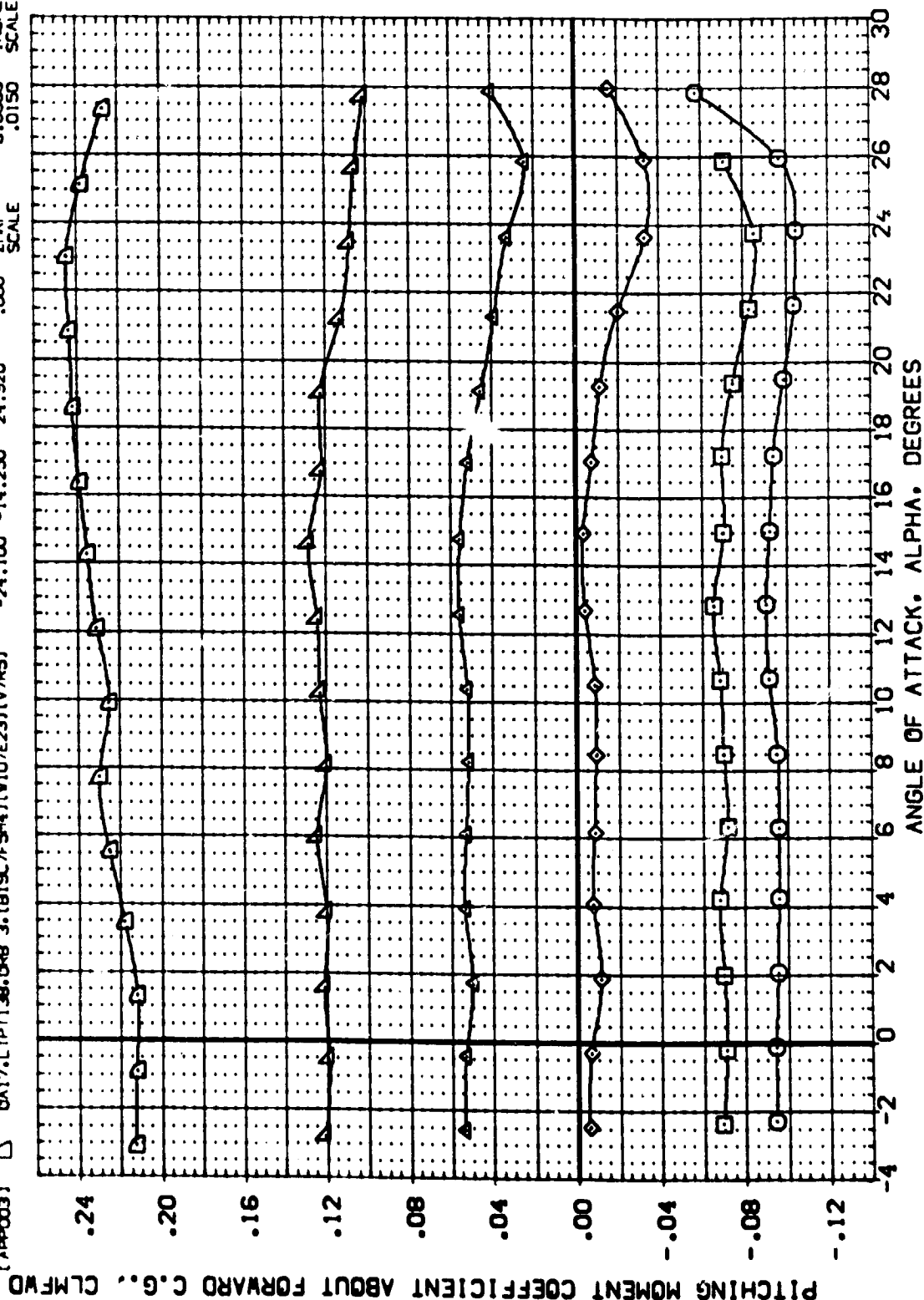


FIGURE 5 139B ORBITER ELEVON DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
APROB	CA17.L.PT1 38.DRB 3.(8)9C7F5M4 (V107E23) (V7RS)	14.700	-14.250	24.920	.000	SREF 87.1560 50.1N
APROD1	CA17.L.PT1 38.DRB 3.(8)9C7F5M4 (V107E23) (V7RS)	11.100	-14.250	24.920	.000	LREF 19.3545 INCHES
APROD2	CA17.L.PT1 38.DRB 3.(8)9C7F5M4 (V107E23) (V7RS)	5.600	-14.250	24.920	.000	BREF 14.0502 INCHES
APROD3	CA17.L.PT1 38.DRB 3.(8)9C7F5M4 (V107E23) (V7RS)	.000	-14.250	24.920	.000	XRRP 12.5770 INCHES
APROD4	CA17.L.PT1 38.DRB 3.(8)9C7F5M4 (V107E23) (V7RS)	-11.800	-14.250	24.920	.000	ZRRP 6.0000 INCHES
APROD5	CA17.L.PT1 38.DRB 3.(8)9C7F5M4 (V107E23) (V7RS)	-24.100	-14.250	24.920	.000	SCALE .0150

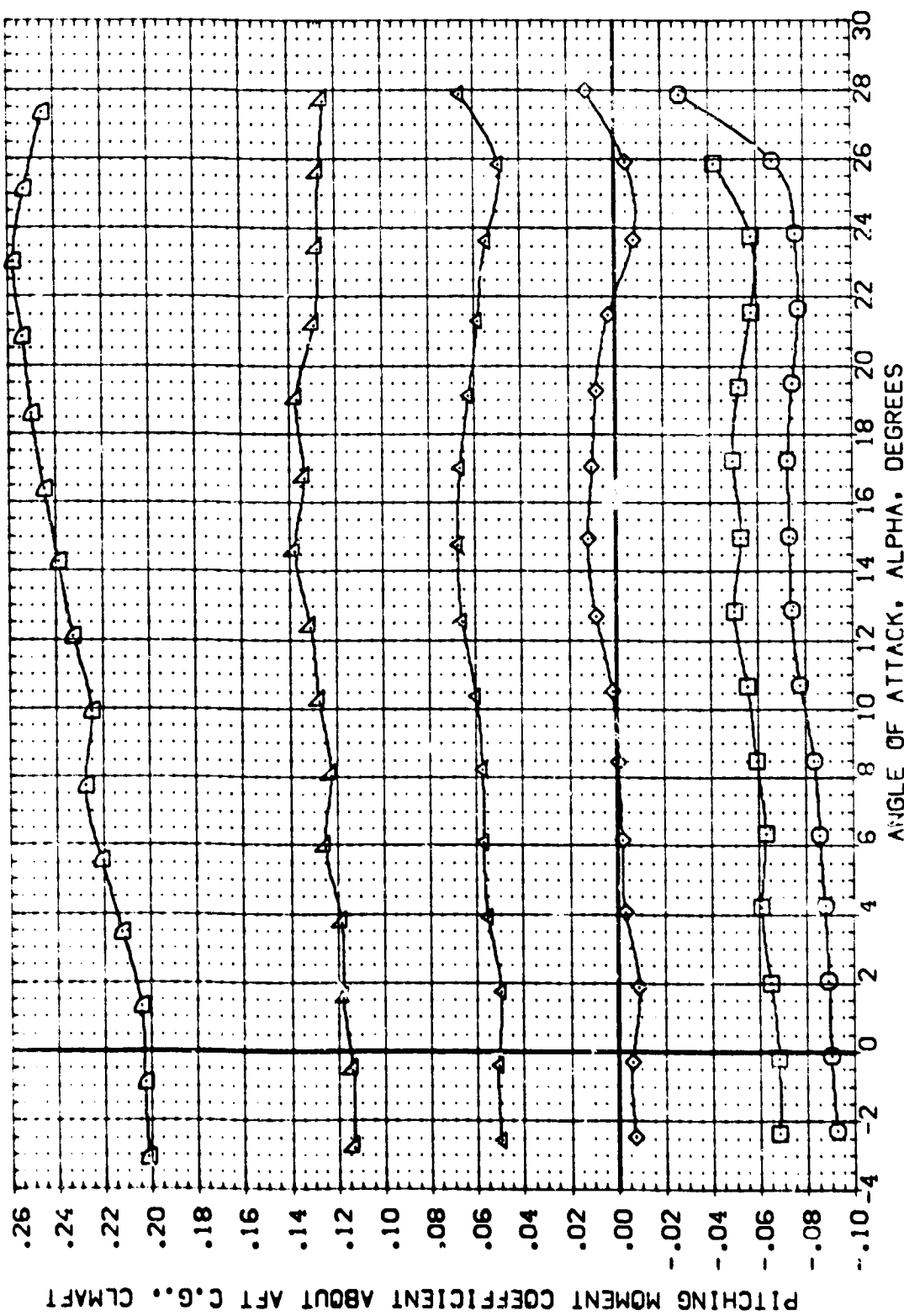


FIGURE 5 139B ORBITER ELEVON DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BDFLAP	SPOBR	RUDER	REFERENCE INFORMATION
[APPO18]	DA17, L1PT1, 38, ORB 3, (B) SC7F 5M4 (V107E23) (V7R5)	14.700	-14.250	24.920	.000	SREF 37.1560 SQ. IN.
[APPO04]	DA17, L1PT1, 38, ORB 3, (B) SC7F 5M4 (V107E23) (V7R5)	11.100	-14.250	24.920	.000	LREF 19.3545 INC-ES
[APPO17]	DA17, L1PT1, 38, ORB 3, (B) SC7F 5M4 (V107E23) (V7R5)	5.600	-14.250	24.920	.000	BREF 14.0502
[APPO02]	DA17, L1PT1, 38, ORB 3, (B) SC7F 5M4 (V107E23) (V7R5)	.000	-14.250	24.920	.000	XMRP 12.5770
[APPO19]	DA17, L1PT1, 38, ORB 3, (B) SC7F 5M4 (V107E23) (V7R5)	-11.800	-14.250	24.920	.000	YMRP 6.0000
[APPO03]	DA17, L1PT1, 38, ORB 3, (B) SC7F 5M4 (V107E23) (V7R5)	-24.100	-14.250	24.920	.000	ZMRP 6.0000
						SCALE .0150

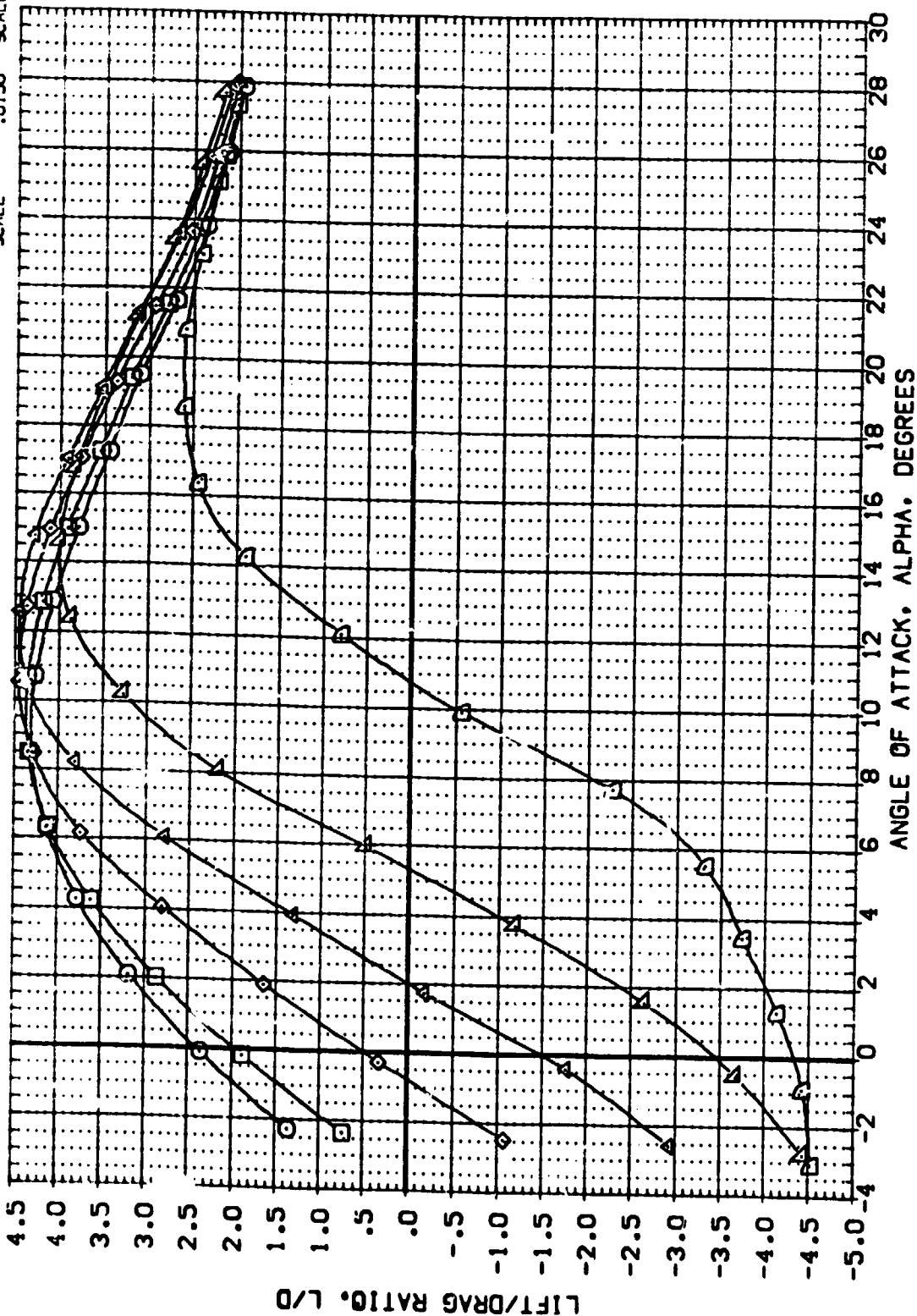


FIGURE 5 1398 ORBITER ELEVON DEFLECTION EFFECTS

(A) RN/L = 4.70

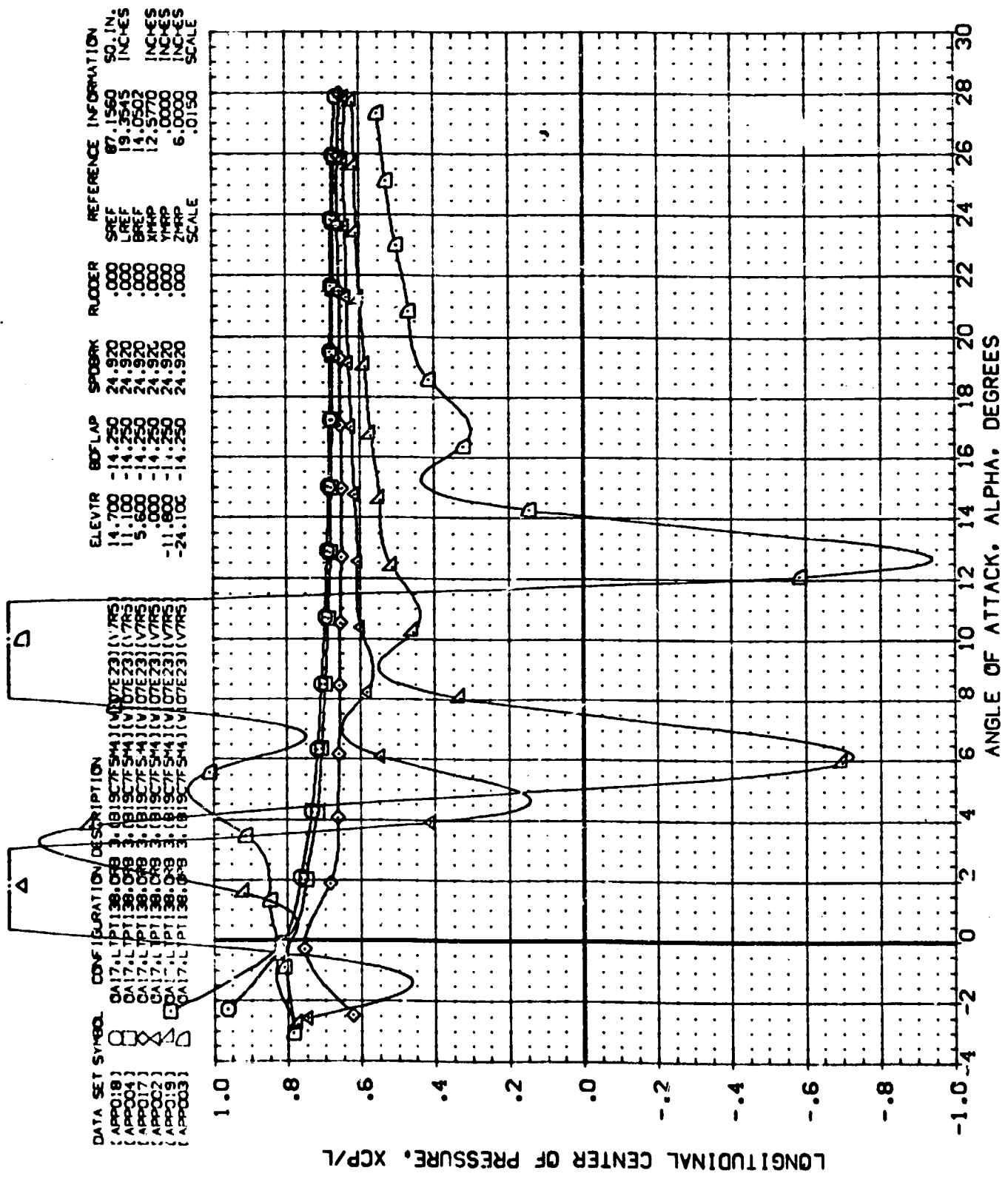


FIGURE 5 1398 ORBITER ELEVON DEFLECTION EFFECTS

(AJRN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPDBRK	RUDDER	REFERENCE INFORMATION
[APPO01]	DA17.L1PT138.DR8 3.(8)SC7F5M4(V107E23)(V7RS)	14.700	-14.250	24.920	.000	SREF 87.1560 50.1N.
[APPO02]	DA17.L1PT138.DR8 3.(8)SC7F5M4(V107E23)(V7RS)	11.100	-14.250	24.920	.000	LREF 19.3545 INCHES
[APPO03]	DA17.L1PT138.DR8 3.(8)SC7F5M4(V107E23)(V7RS)	5.600	-14.250	24.920	.000	BREF 14.0502 INCHES
[APPO04]	DA17.L1PT138.DR8 3.(8)SC7F5M4(V107E23)(V7RS)	.000	-14.250	24.920	.000	YREF 12.5770 INCHES
[APPO05]	DA17.L1PT138.DR8 3.(8)SC7F5M4(V107E23)(V7RS)	-11.800	-14.250	24.920	.000	ZREF 6.0000 INCHES
[APPO06]	DA17.L1PT138.DR8 3.(8)SC7F5M4(V107E23)(V7RS)	-24.100	-14.250	24.920	.000	YARP 6.0000 INCHES
						ZARP .0150 SCALE

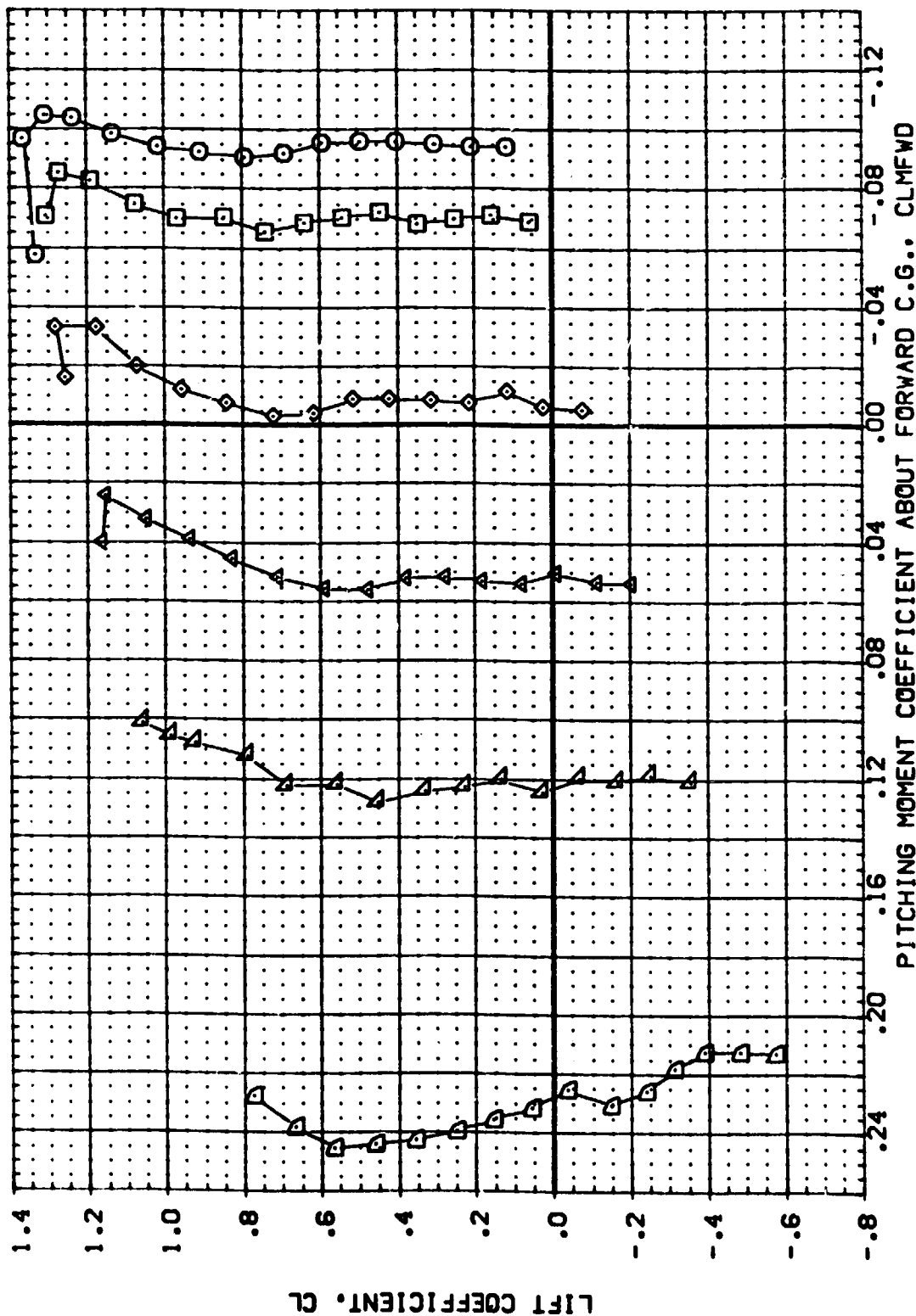


FIGURE 5 139B ORBITER ELEVON DEFLECTION EFFECTS

(A)RN/L = 4.70



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
{ APP018 }	DA17.LTPT138.DR8 3.(8)SC7F5M4(VI07E23)(V7R8)	14.700	-14.250	24.920	.000	SREF 87.1560 50.1N.
{ APP004 }	DA17.LTPT138.DR8 3.(8)SC7F5M4(VI07E23)(V7R8)	11.100	-14.250	24.920	.000	LREF 19.3545 INCHES
{ APP017 }	DA17.LTPT138.DR8 3.(8)SC7F5M4(VI07E23)(V7R8)	5.600	-14.250	24.920	.000	BREF 1.0502 INCHES
{ APP002 }	DA17.LTPT138.DR8 3.(8)SC7F5M4(VI07E23)(V7R8)	.000	-14.250	24.920	.000	XPRP 12.5770 INCHES
{ APP019 }	DA17.LTPT138.DR8 3.(8)SC7F5M4(VI07E23)(V7R8)	-11.800	-14.250	24.920	.000	ZPRP 6.0000 INCHES
{ APP003 }	DA17.LTPT138.DR8 3.(8)SC7F5M4(VI07E23)(V7R8)	-24.100	-14.250	24.920	.000	SCALE .0150

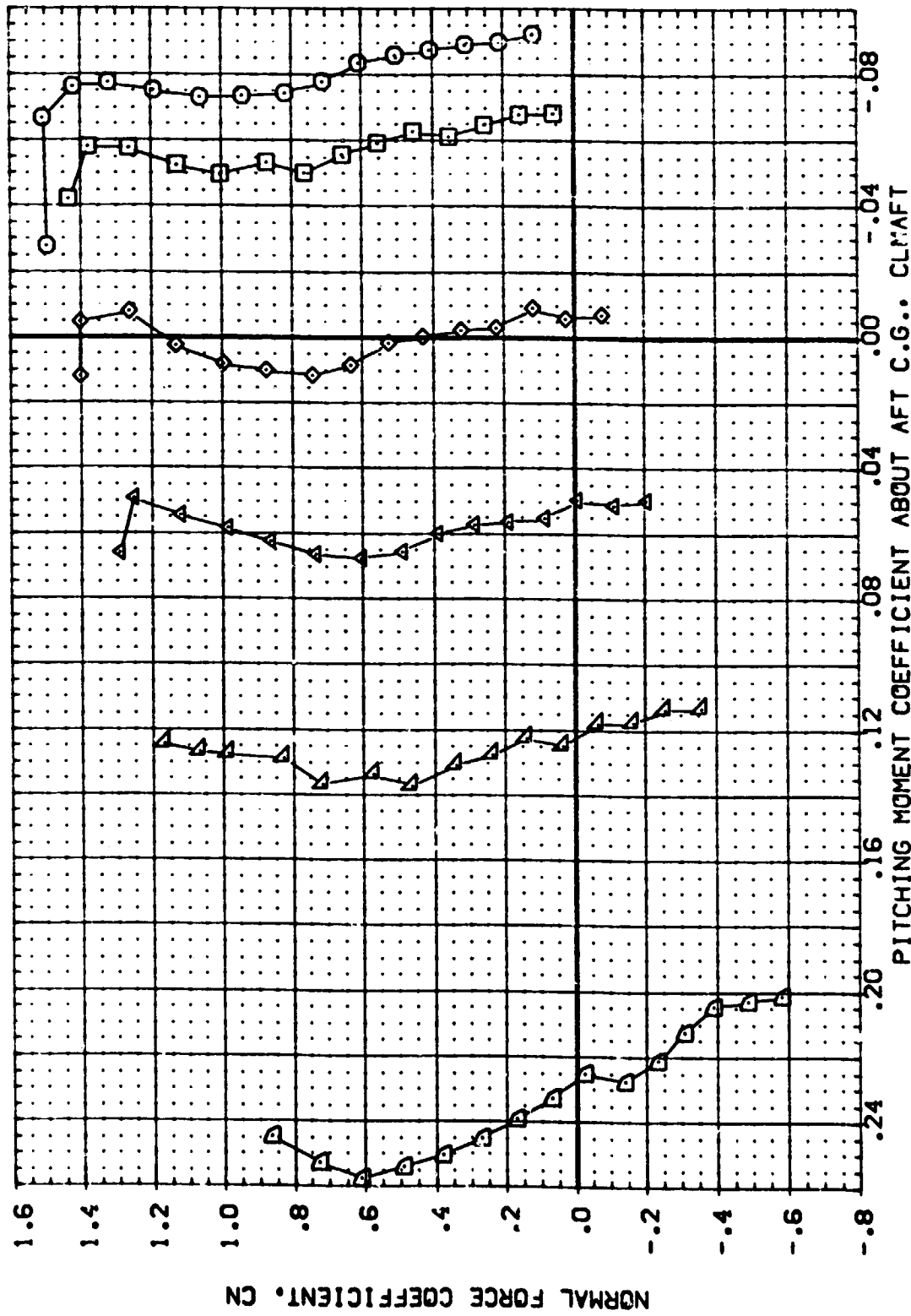


FIGURE 5 139B ORBITER ELEVON DEFLECTION EFFECTS

AJRN/L = 4.70

DATA SET SYMBO.	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
[APPO01]	DA17.LTPT138.DRB 3.(81SC7F5M4)(V107E23)(V7R5)	14.700	-14.250	24.920	.000	SREF 87.1560 50.IN
[APPO02]	DA17.LTPT138.DRB 3.(81SC7F5M4)(V107E23)(V7R5)	11.100	-14.250	24.920	.000	LREF 19.3545 INO-ES
[APPO03]	DA17.LTPT138.DRB 3.(81SC7F5M4)(V107E23)(V7R5)	5.600	-14.250	24.920	.000	BREF 14.0502 INO-ES
[APPO04]	DA17.LTPT138.DRB 3.(81SC7F5M4)(V107E23)(V7R5)	.000	-14.250	24.920	.000	YMRP 12.5770 INO-ES
[APPO05]	DA17.LTPT138.DRB 3.(81SC7F5M4)(V107E23)(V7R5)	-11.800	-14.250	24.920	.000	ZMRP 6.0000 INO-ES
[APPO06]	DA17.LTPT138.DRB 3.(81SC7F5M4)(V107E23)(V7R5)	-24.100	-14.250	24.920	.000	SCALE .0150

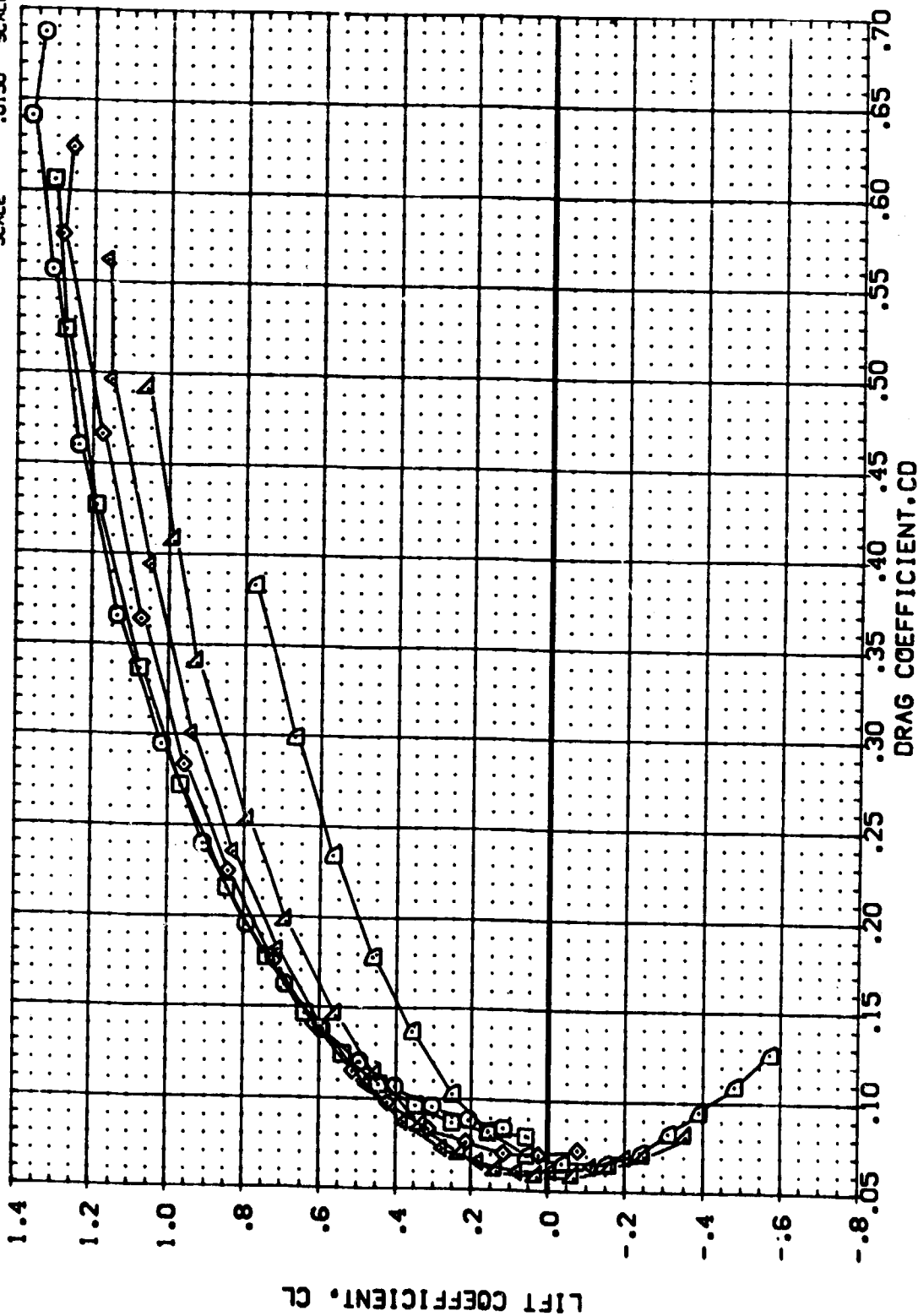


FIGURE 5 1398 ORBITER ELEVON DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPDRBK	RUDDER	REFERENCE INFORMATION
[RPP018]	DA17.L1PT138.ORB 3.(8)9C7F5M4)(V107E23)(V7RS)	14.700	-14.250	24.920	.000	SREF 87.1550 50. IN.
[RPP004]	DA17.L1PT138.ORB 3.(8)9C7F5M4)(V107E23)(V7RS)	11.100	-14.250	24.920	.000	LREF 19.5545 INCHES
[RPP017]	DA17.L1PT138.ORB 3.(8)9C7F5M4)(V107E23)(V7RS)	5.600	-14.250	24.920	.000	BREF 14.0502 INCHES
[RPP002]	DA17.L1PT138.ORB 3.(8)9C7F5M4)(V107E23)(V7RS)	.000	-14.250	24.920	.000	XHPP 12.5770 INCHES
[RPP019]	DA17.L1PT138.ORB 3.(8)9C7F5M4)(V107E23)(V7RS)	-11.800	-14.250	24.920	.000	YHPP 6.0000 INCHES
[RPP003]	DA17.L1PT138.ORB 3.(8)9C7F5M4)(V107E23)(V7RS)	-24.100	-14.250	24.920	.000	ZHPP .0150 SCALE

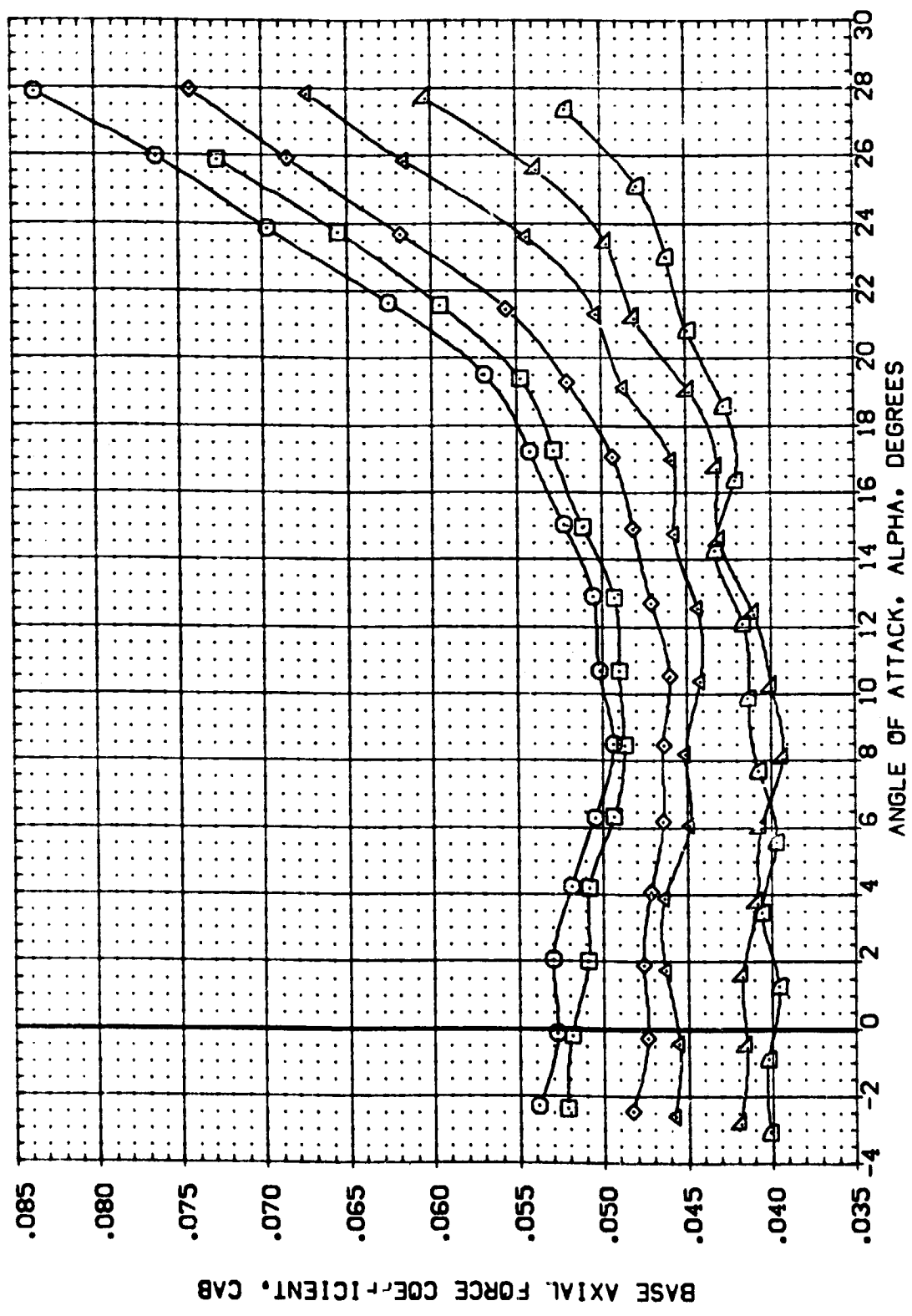


FIGURE 5 139B ORBITER ELEVON DEFLECTION EFFECTS

(AJRN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION	SO. IN.
[APPO18]	DA17.LTPT138.DRB 3.(B19C7F5M4)(V107E23)(V7RS)	14.700	-14.250	24.920	.000	SREF 87.1560	INC-ES
[APPO19]	DA17.LTPT138.DRB 3.(B19C7F5M4)(V107E23)(V7RS)	11.100	-14.250	24.920	.000	LREF 19.3545	INC-ES
[APPO20]	DA17.LTPT138.DRB 3.(B19C7F5M4)(V107E23)(V7RS)	5.600	-14.250	24.920	.000	BREF 14.0502	INC-ES
[APPO21]	DA17.LTPT138.DRB 3.(B19C7F5M4)(V107E23)(V7RS)	.000	-14.250	24.920	.000	XMRP 12.5770	INC-ES
[APPO22]	DA17.LTPT138.DRB 3.(B19C7F5M4)(V107E23)(V7RS)	-11.800	-14.250	24.920	.000	ZMRP 6.0000	INC-ES
[APPO23]	DA17.LTPT138.DRB 3.(B19C7F5M4)(V107E23)(V7RS)	-24.100	-14.250	24.920	.000	SCALE .0150	SCALE

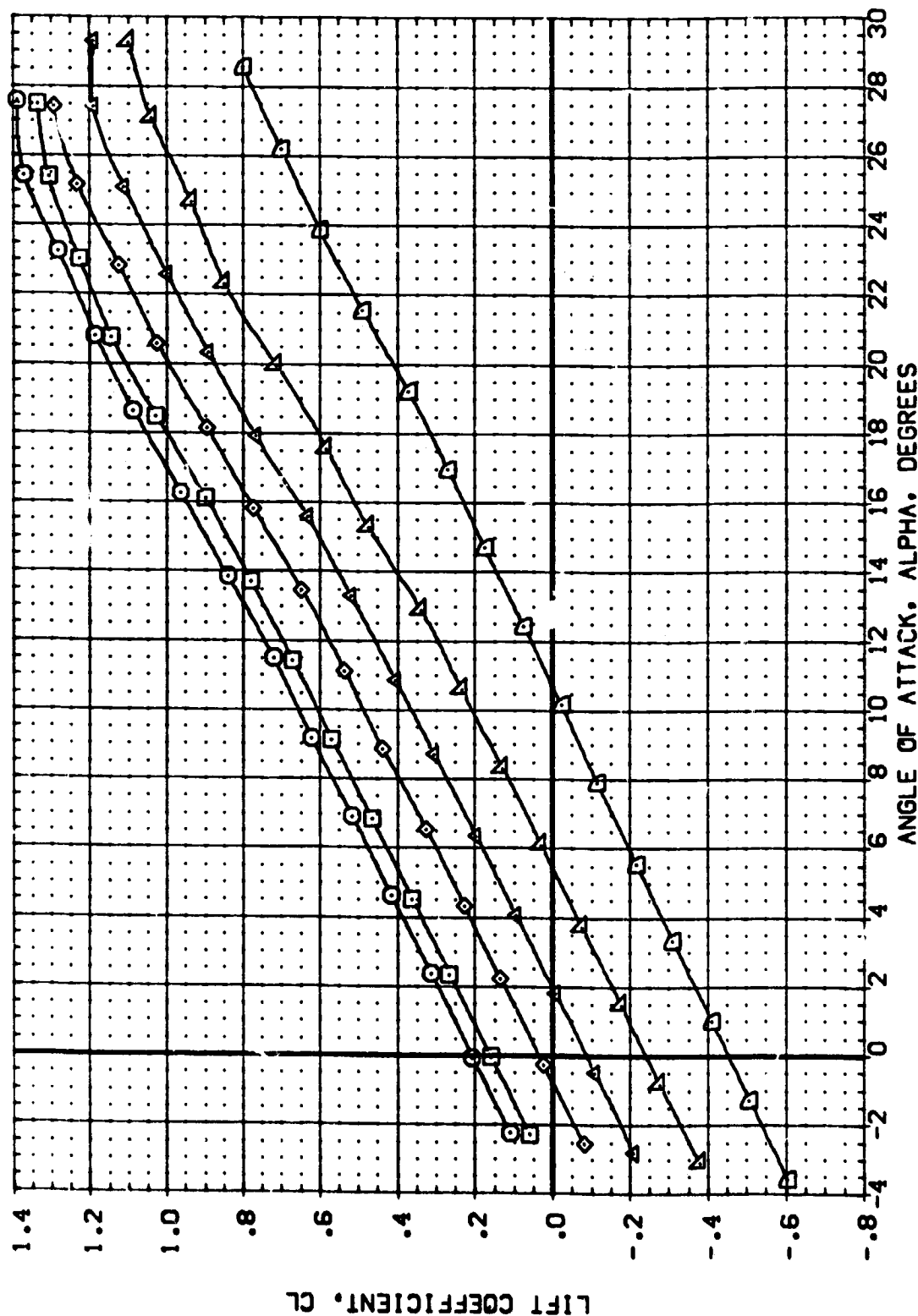


FIGURE 5 139B ORBITER ELEVON DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMB.	CONFIGURATION DESCRIPTION	ELEVTR	BCFLAP	SPDRBK	RUDER	REFERENCE INFORMATION
[APPO18]	DA17.LIPT 38.ORB 3.(B)SC7FSM4 (V107E23) (V7RS)	14.700	-14.250	24.920	.000	SREF 87.1560 SQ.IN.
[APPO04]	DA17.LIPT 38.ORB 3.(B)SC7FSM4 (V107E23) (V7RS)	11.100	-14.250	24.920	.000	LREF 19.3545 INCHES
[APPO17]	DA17.LIPT 38.ORB 3.(B)SC7FSM4 (V107E23) (V7RS)	5.600	-14.250	24.920	.000	BREF 14.0502 INCHES
[APPO02]	DA17.LIPT 38.ORB 3.(B)SC7FSM4 (V107E23) (V7RS)	.000	-14.250	24.920	.000	YREF 12.3770 INCHES
[APPO19]	DA17.LIPT 38.ORB 3.(B)SC7FSM4 (V107E23) (V7RS)	-11.600	-14.250	24.920	.000	ZREF 6.0000 INCHES
[APPO03]	DA17.LIPT 38.ORB 3.(B)SC7FSM4 (V107E23) (V7RS)	-24.100	-14.250	24.920	.000	SCALE .0150 SCALE

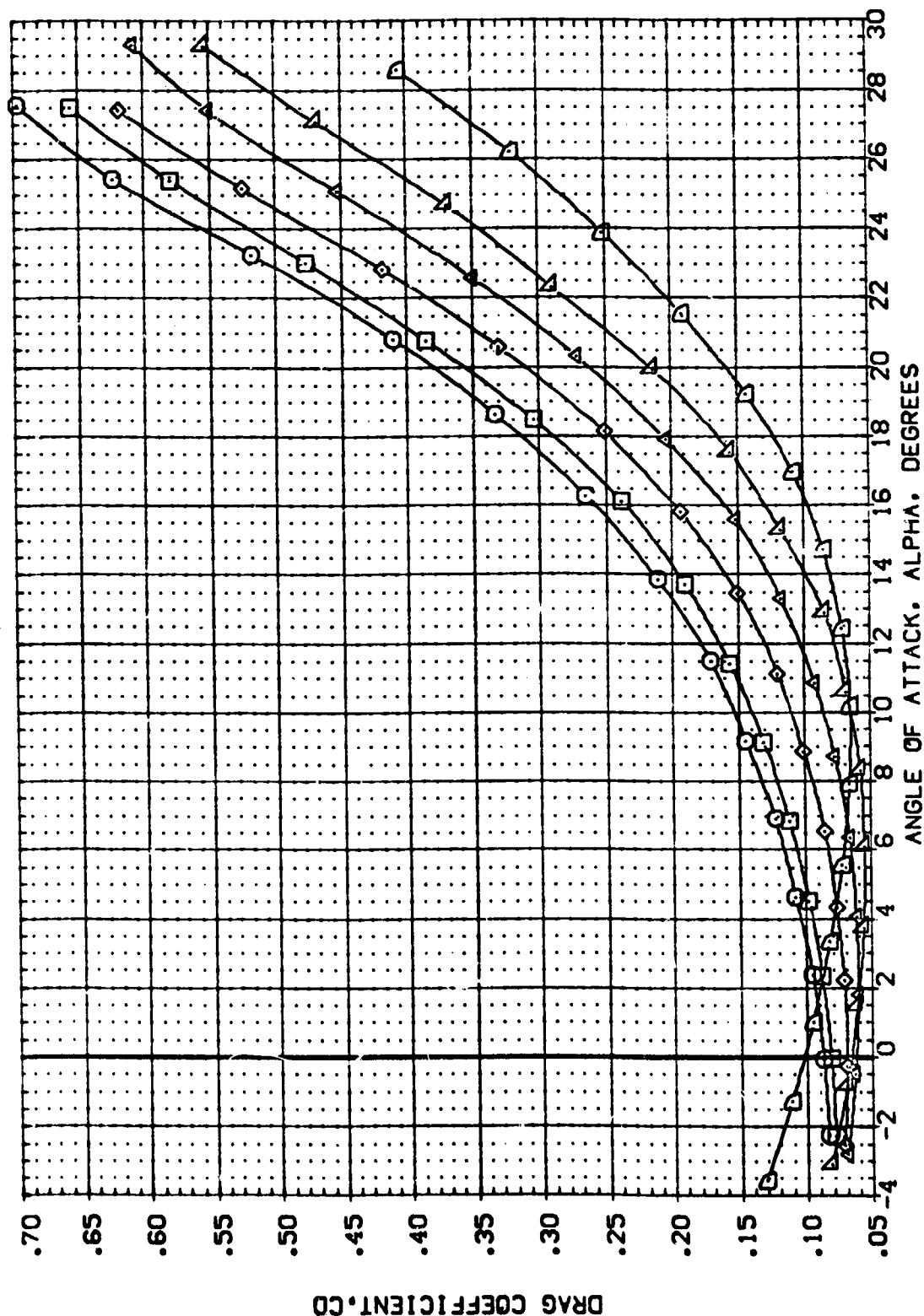


FIGURE 5 1398 ORBITER ELEVON DEFLECTION EFFECTS

(AJRN/L = 10.00

DATA SET SYMBL	CONF IGURATION DESCRIPTION	ELEVTR	BDF LAP	SPOBRK	RUDDR	REFERENCE INFORMATION	SO IN
[APR018]	DA17ALPT138.0R8 3. (B19C7F5M4) (V107E23) (V7R5)	14.700	-14.250	24.920	.000	SREF	87.1550
[APR004]	DA17ALPT138.0R8 3. (B19C7F5M4) (V107E23) (V7R5)	11.100	-14.250	24.920	.000	LREF	19.2545
[APR017]	DA17ALPT138.0R8 3. (B19C7F5M4) (V107E23) (V7R5)	5.600	-14.250	24.920	.000	BREF	14.0502
[APR002]	DA17ALPT138.0R8 3. (B19C7F5M4) (V107E23) (V7R5)	.000	-14.250	24.920	.000	XMRP	12.5770
[APR019]	DA17ALPT138.0R8 3. (B19C7F5M4) (V107E23) (V7R5)	-11.800	-14.250	24.920	.000	ZMRP	6.0000
[APR003]	DA17ALPT138.0R8 3. (B19C7F5M4) (V107E23) (V7R5)	-24.100	-14.250	24.920	.000	SCALE	.0150

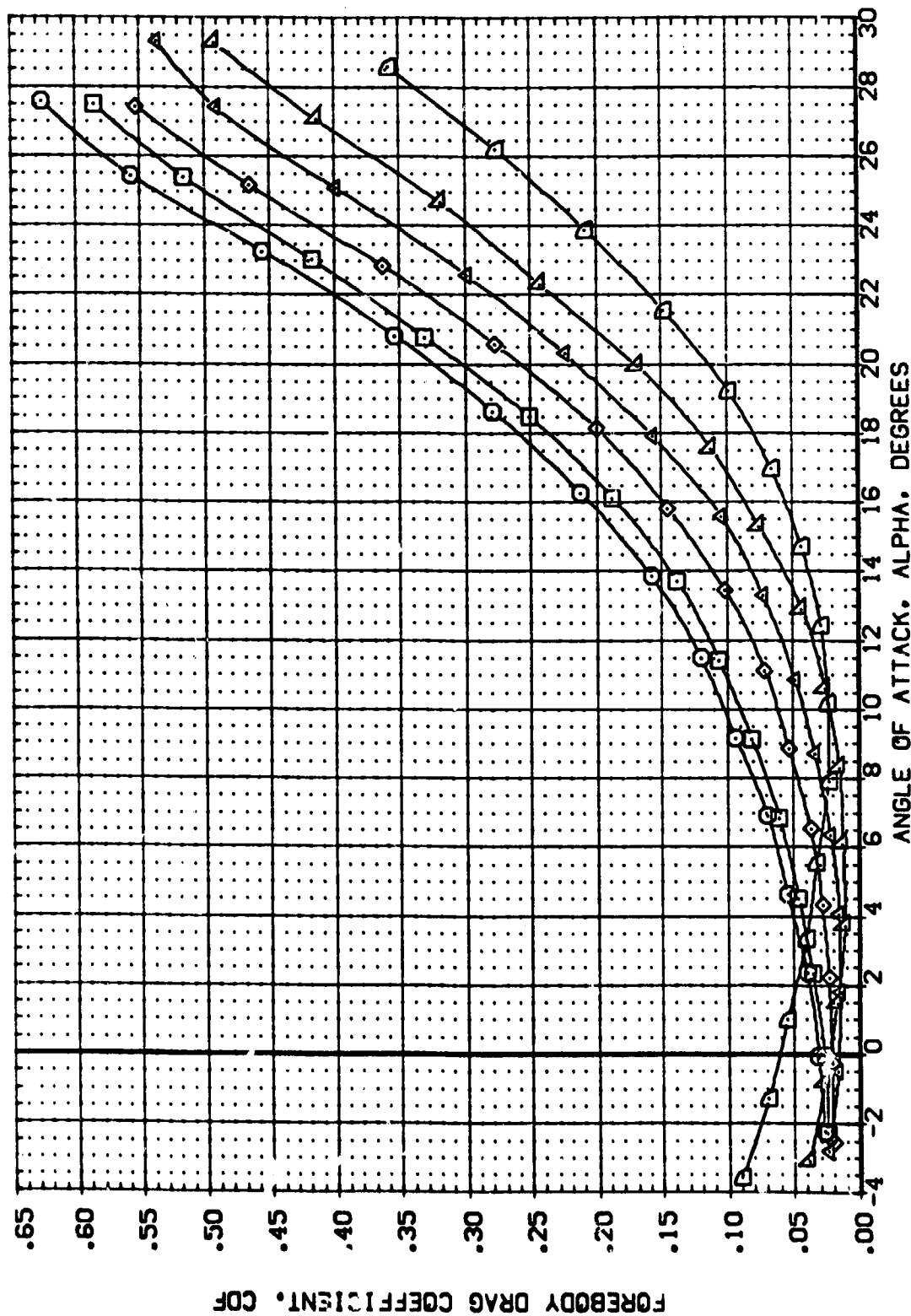


FIGURE 5 139B ORBITER ELEVON DEFLECTION EFFECTS

(AJRN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
[APPO10]	DA17.LTPT138.DRB 3.(B1SC7F5M4)(V107E23)(V7R5)	14.700	-14.250	24.920	.000	SREF 87.1560 SO.IN.
[APPO04]	DA17.LTPT138.DRB 3.(B1SC7F5M4)(V107E23)(V7R5)	11.100	-14.250	24.920	.000	LREF 19.3545 INO-ES
[APPO17]	DA17.LTPT138.DRB 3.(B1SC7F5M4)(V107E23)(V7R5)	5.600	-14.250	24.920	.000	BREF 14.0502
[APPO02]	DA17.LTPT138.DRB 3.(B1SC7F5M4)(V107E23)(V7R5)	.000	-14.250	24.920	.000	XRPP 12.5770 INO-ES
[APPO:9]	DA17.LTPT138.DRB 3.(B1SC7F5M4)(V107E23)(V7R5)	-11.800	-14.250	24.920	.000	YMRP 6.0000 INO-ES
[APPO03]	DA17.LTPT138.DRB 3.(B1SC7F5M4)(V107E23)(V7R5)	-24.100	-14.250	24.920	.000	ZMRP 6.0000 SCALE
						S-SCALE .0150

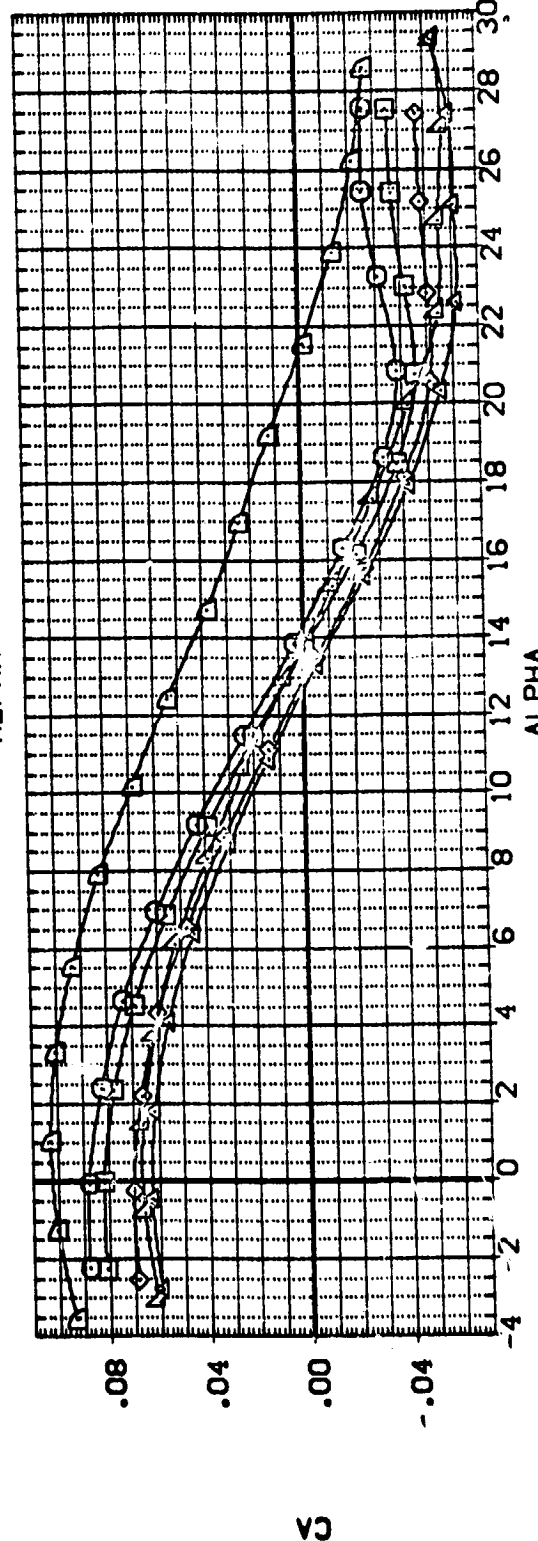
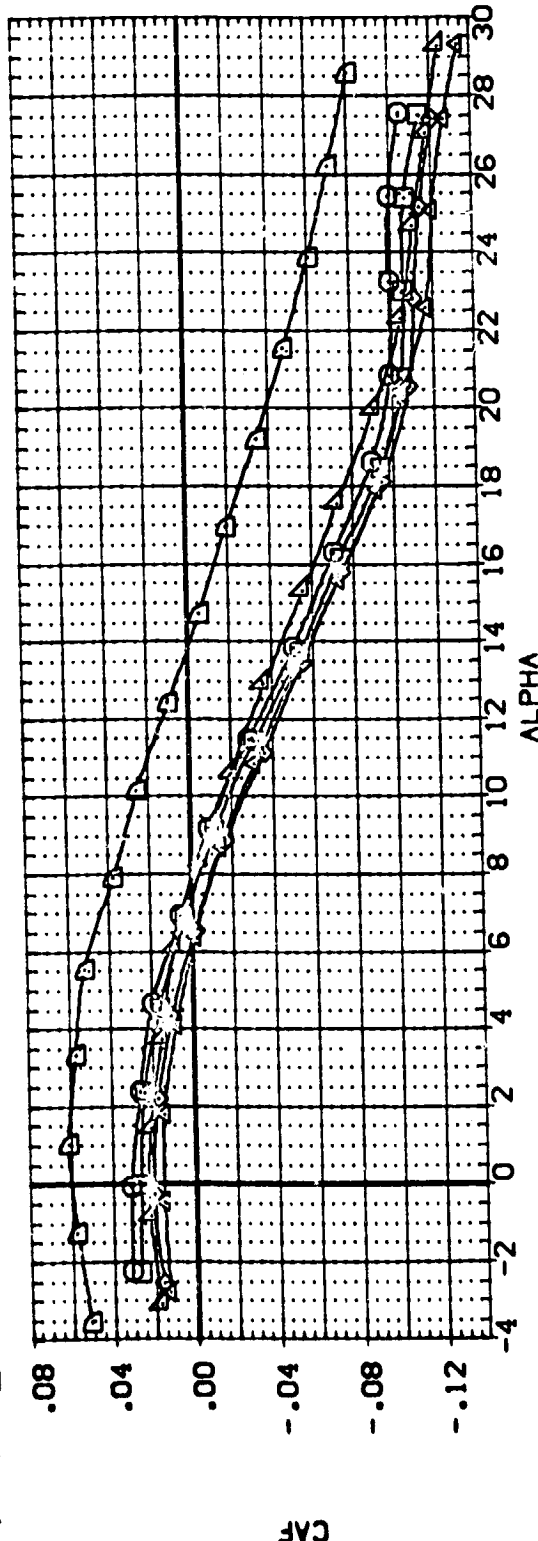


FIGURE 5 139B ORBITER ELEVON DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPDRBK	RUDER	REFERENCE INFORMATION
[APPO18]	0A17ALPT138.058 3.(815C7F5M4)(V107E23)(V7R5)	14.700	-14.250	24.920	.000	SREF 87.1560 SQ. IN.
[APPO19]	0A17ALPT138.058 3.(815C7F5M4)(V107E23)(V7R5)	11.100	-14.250	24.920	.000	LREF 19.3545 INCHES
[APPO20]	0A17ALPT138.058 3.(815C7F5M4)(V107E23)(V7R5)	5.600	-14.250	24.920	.000	BREF 14.0502 INCHES
[APPO21]	0A17ALPT138.058 3.(815C7F5M4)(V107E23)(V7R5)	-11.800	-14.250	24.920	.000	XREF 12.5770 INCHES
[APPO22]	0A17ALPT138.058 3.(815C7F5M4)(V107E23)(V7R5)	-24.100	-14.250	24.920	.000	YREF 6.0000 INCHES
[APPO23]	0A17ALPT138.058 3.(815C7F5M4)(V107E23)(V7R5)				.000	ZREF 6.0000 INCHES
						SCALE .0150

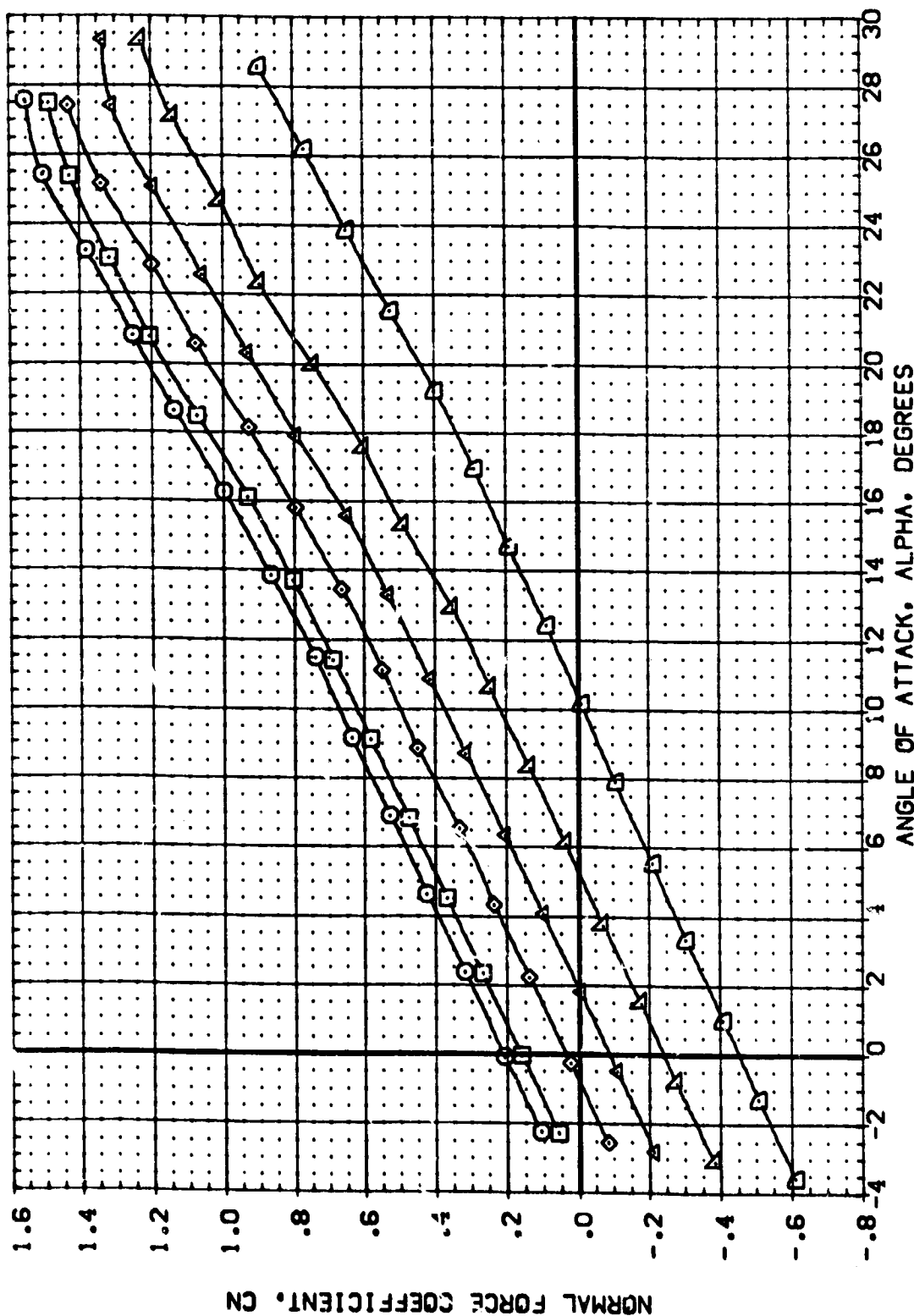


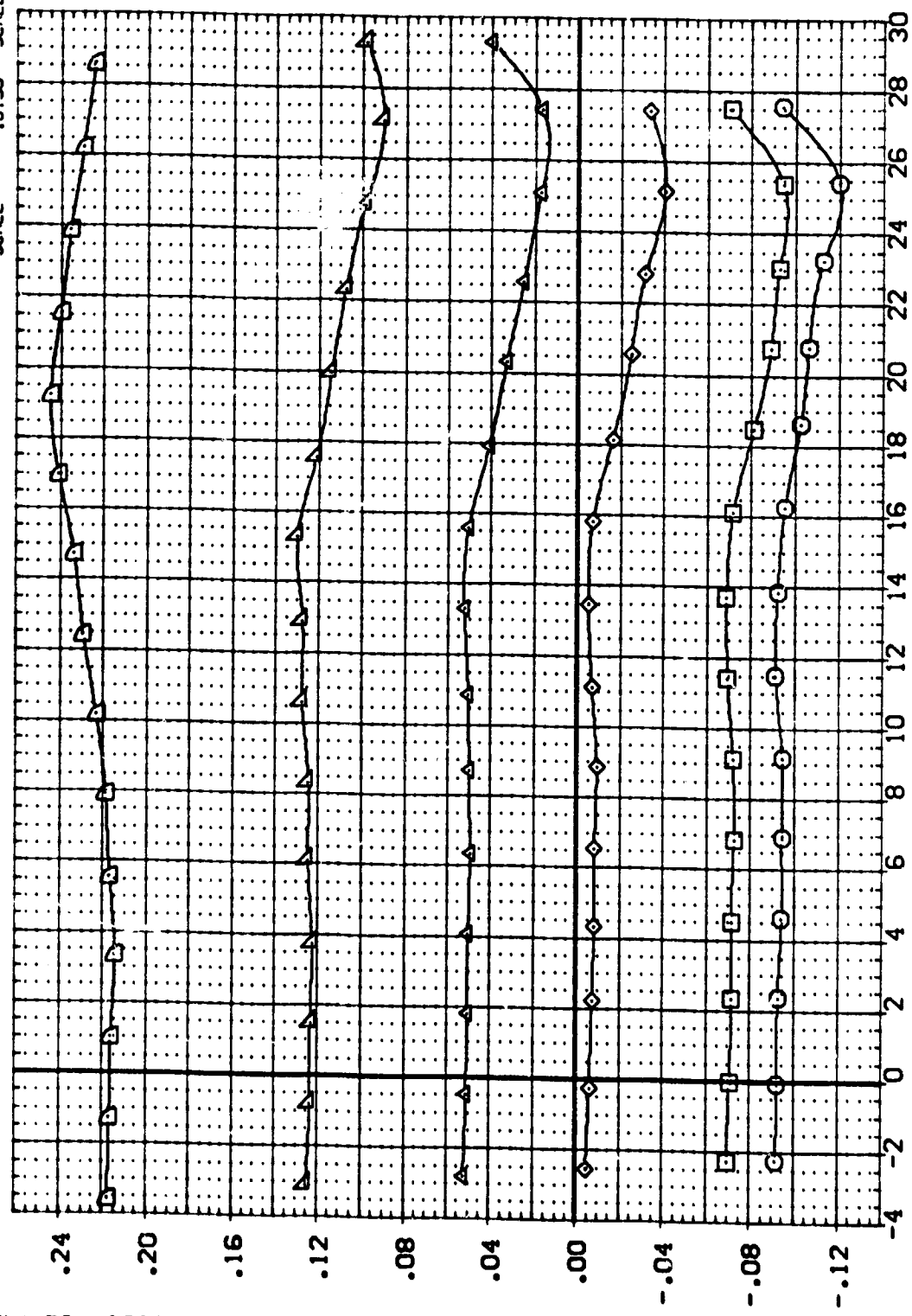
FIGURE 5 139B ORBITER ELEVON DEFLECTION EFFECTS

(A)RN/L = 10.00



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
[APPO18]	CA17,LTPT138,ORB 3,(B1SC7F5M4)(V107E23)(V7R5)	14.700	-14.250	24.920	.000	SREF 87.1550
[APPO14]	CA17,LTPT138,ORB 3,(B1SC7F5M4)(V107E23)(V7R5)	11.100	-14.250	24.920	.000	LREF 19.3545
[APPO17]	CA17,LTPT138,ORB 3,(B1SC7F5M4)(V107E23)(V7R5)	5.600	-14.250	24.920	.000	BREF 4.0502
[APPO02]	CA17,LTPT138,ORB 3,(B1SC7F5M4)(V107E23)(V7R5)	.000	-14.250	24.920	.000	XRPP 12.5770
[APPO19]	CA17,LTPT138,ORB 3,(B1SC7F5M4)(V107E23)(V7R5)	-11.800	-14.250	24.920	.000	YMRP 6.0000
[APPO03]	CA17,LTPT138,ORB 3,(B1SC7F5M4)(V107E23)(V7R5)	-24.100	-14.250	24.920	.000	ZMRP 6.0000
						SCALE .0150

PITCHING MOMENT COEFFICIENT ABOUT FORWARD C.G., CLMFW



ANGLE OF ATTACK, ALPHA, DEGREES

FIGURE 5 139B ORBITER ELEVON DEFLECTION EFFECTS

(AJRN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPDBRK	RUDDER	REFERENCE INFORMATION
[APPO18]	OA17AL TPT138.058 3.(B19C7F5M4)(V107E23)(V7R5)	14.700	-14.250	24.920	.000	SREF 87.1560 50.IN.
[APPO19]	OA17AL TPT138.058 3.(B19C7F5M4)(V107E23)(V7R5)	11.100	-14.250	24.920	.000	LREF 19.3545 INCHES
[APPO20]	OA17AL TPT138.058 3.(B19C7F5M4)(V107E23)(V7R5)	5.600	-14.250	24.920	.000	BREF 14.0502 INCHES
[APPO21]	OA17AL TPT138.058 3.(B19C7F5M4)(V107E23)(V7R5)	.000	-14.250	24.920	.000	XREF 12.5770 INCHES
[APPO22]	OA17AL TPT138.058 3.(B19C7F5M4)(V107E23)(V7R5)	-11.800	-14.250	24.920	.000	YREF 6.0000 INCHES
[APPO23]	OA17AL TPT138.058 3.(B19C7F5M4)(V107E23)(V7R5)	-24.100	-14.250	24.920	.000	ZREF 6.0150 INCHES
						SCALE

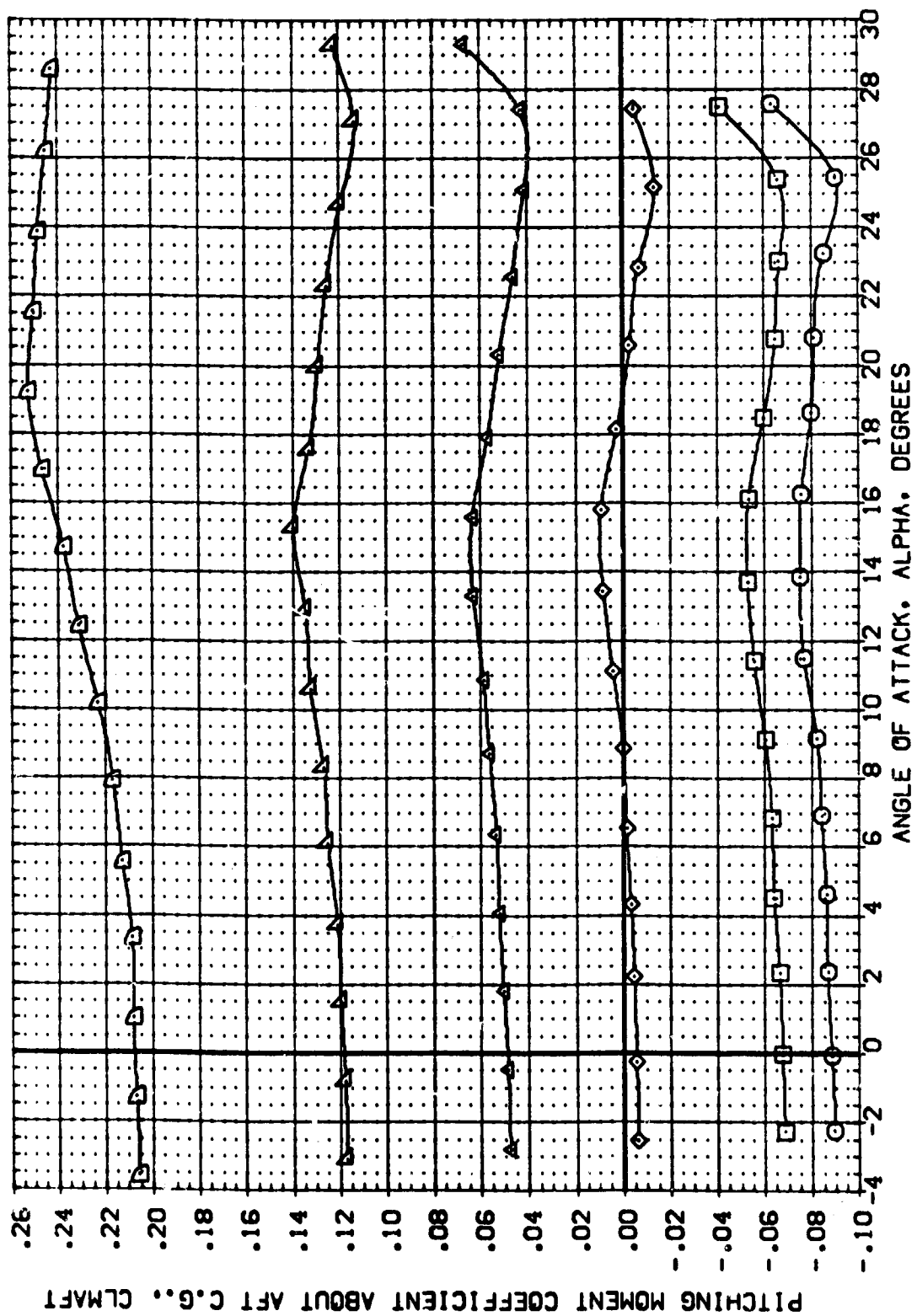


FIGURE 5 1398 ORBITER ELEVON DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BD/LAP	SPOBRK	RUDDER	REFERENCE INFORMATION
[APPO18]	GA17.L1PT138.DRB 3.(B19C7F5M4)(V107E23)(V1RS)	14.700	-14.250	24.920	.000	SREF 87.1560 50.1N.
[APPO04]	GA17.L1PT138.DRB 3.(B19C7F5M4)(V107E23)(V1RS)	11.100	-14.250	24.920	.000	LREF 19.3545 INCHES
[APPO17]	GA17.L1PT138.DRB 3.(B19C7F5M4)(V107E23)(V1RS)	5.600	-14.250	24.920	.000	BREF 14.0502 INCHES
[APPO02]	GA17.L1PT138.DRB 3.(B19C7F5M4)(V107E23)(V1RS)	.000	-14.250	24.920	.000	XMRP 12.5770 INCHES
[APPO19]	GA17.L1PT138.DRB 3.(B19C7F5M4)(V107E23)(V1RS)	-11.800	-14.250	24.920	.000	YMRP 5.0000 INCHES
[APPO03]	GA17.L1PT138.DRB 3.(B19C7F5M4)(V107E23)(V1RS)	-24.100	-14.250	24.920	.000	ZMRP 5.0150 SCALE

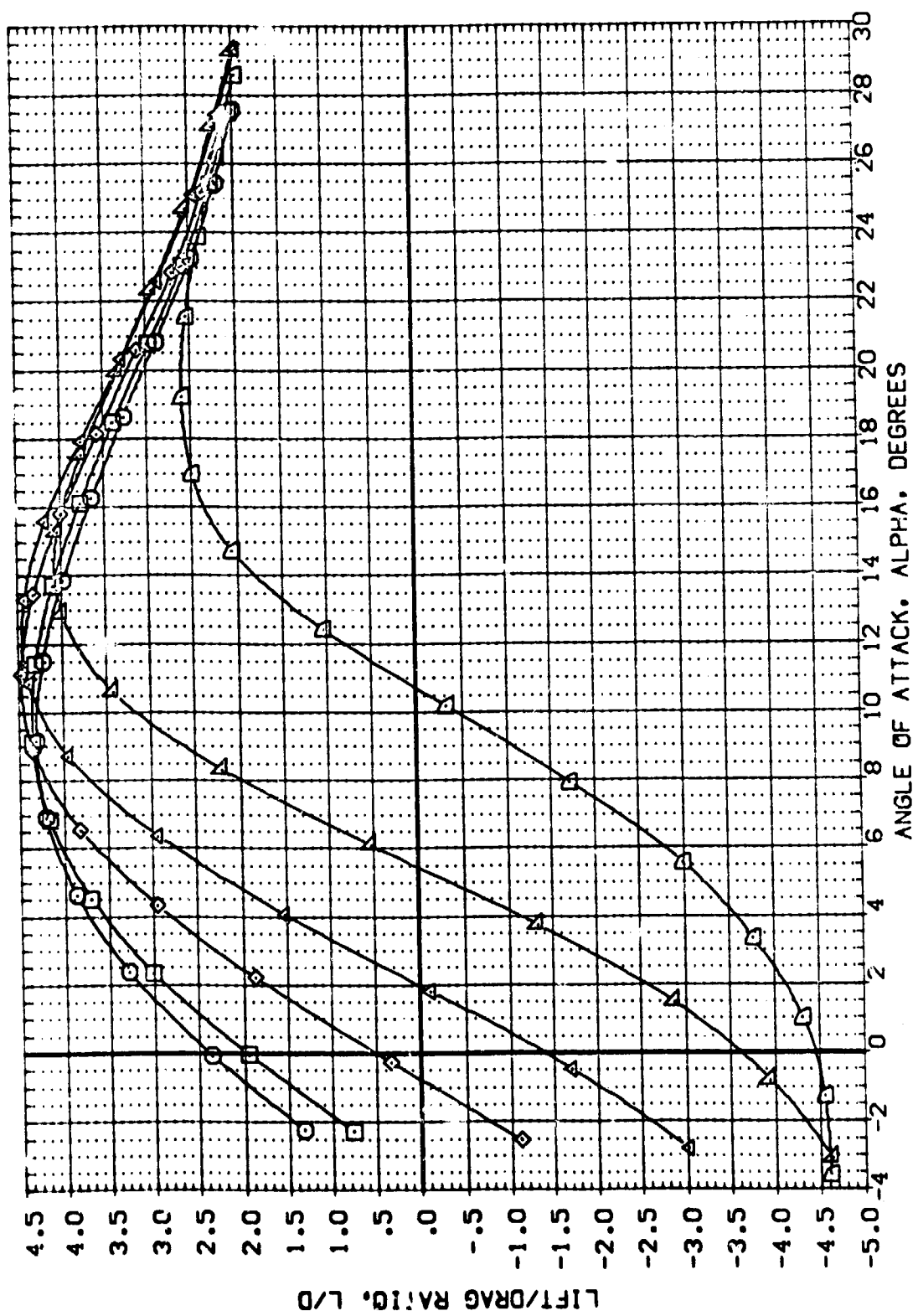


FIGURE 5 139B ORBITER ELEVON DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL CONF QUANTITY/DESCRIPTION ELEVTR BOFLAP SPOBRK RUDDER REFERENCE INFORMATION SO. IN. INCHES

[APPO18]	0A17.L	PT138.008 3.0	14.700	-14.250	24.920	.000	SREF	87.1560	50. IN.
[APPO04]	0A17.L	PT138.008 3.0	11.100	-14.250	24.920	.000	LREF	19.3545	INCHES
[APPO17]	0A17.L	PT138.008 3.0	5.600	-14.250	24.920	.000	BREF	14.0502	INCHES
[APPO02]	0A17.L	PT138.008 3.0	.000	-14.250	24.920	.000	XMRP	12.5770	INCHES
[APPO19]	0A17.L	PT138.008 3.0	-11.800	-14.250	24.920	.000	ZMRP	6.0000	INCHES
[APPO03]	0A17.L	PT138.008 3.0	-24.100	-14.250	24.920	.000	SCALE	.0150	SCALE

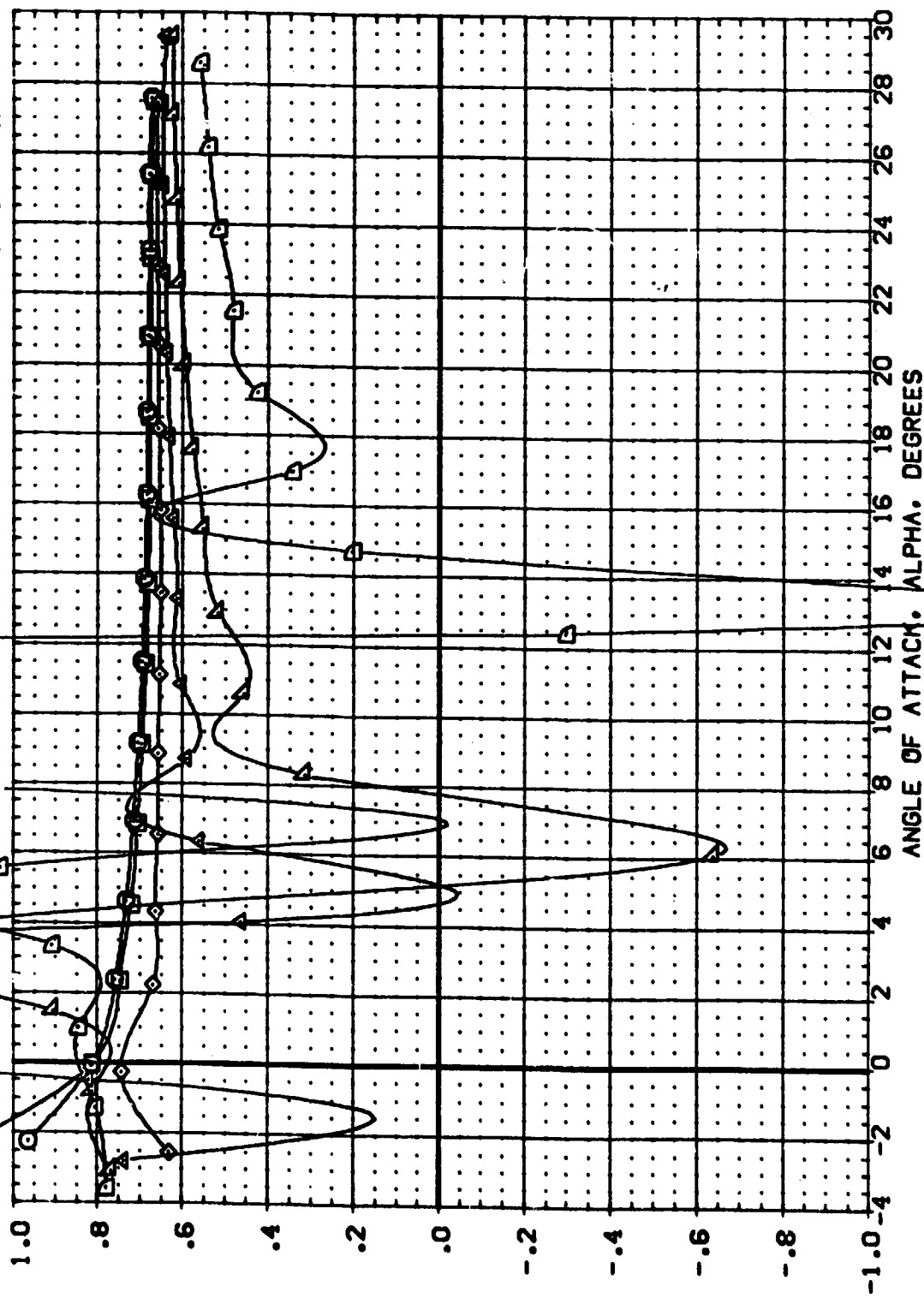


FIGURE 5 1398 ORBITER ELEVON DEFLECTION EFFECTS

(AJRN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPDRK	RUDDER	REFERENCE INFORMATION
[APPO:0]	DA17,LTPT,38,DRB 3,(8)SC7F5M4(V107E23)(V7RS)	14.700	-14.250	24.520	.000	SREF 87.1560 50. IN.
[APPO:1]	DA17,LTPT,38,DRB 3,(8)SC7F5M4(V107E23)(V7RS)	11.100	-14.250	24.520	.000	LREF 19.3545 INO-ES
[APPO:1.7]	DA17,LTPT,38,DRB 3,(8)SC7F5M4(V107E23)(V7RS)	5.600	-14.250	24.520	.000	BREF 14.0502 INO-ES
[APPO:2]	DA17,LTPT,38,DRB 3,(8)SC7F5M4(V107E23)(V7RS)	.000	-14.250	24.520	.000	XREF 12.5770 INO-ES
[APPO:19]	DA17,LTPT,38,DRB 3,(8)SC7F5M4(V107E23)(V7RS)	-11.600	-14.250	24.520	.000	ZREF 6.0000 INO-ES
[APPO:33]	DA17,LTPT,38,DRB 3,(8)SC7F5M4(V107E23)(V7RS)	-24.100	-14.250	24.520	.000	SCALE .0150 SCALE

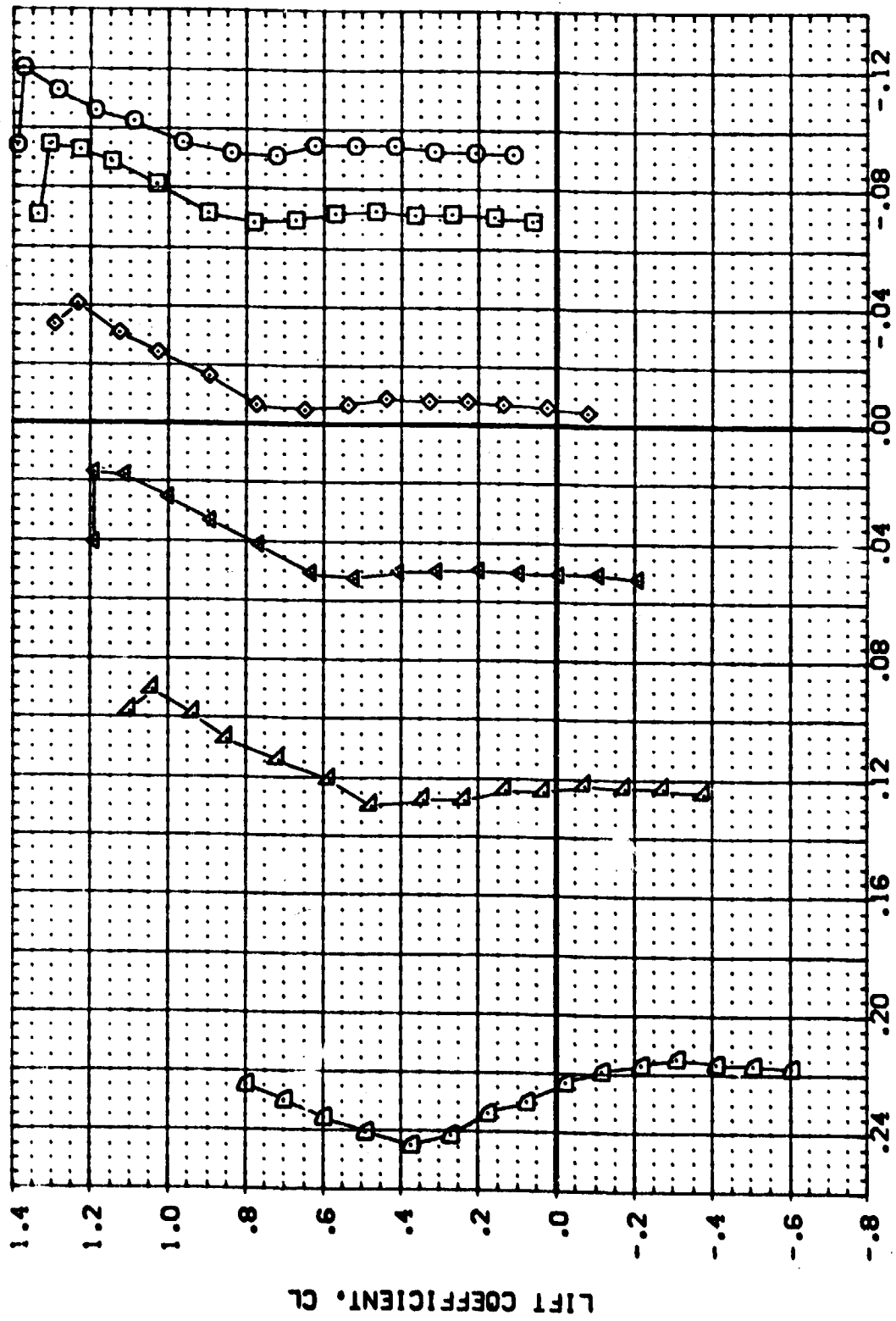


FIGURE 5 1398 ORBITER ELEVON DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BD/LAP	SPDRK	RUDDER	REFERENCE INFORMATION
[APPO18]	DA17.L1PT138.DRB 3.(819C7F5M4)(V107E23)(V7RS)	14.700	-14.250	24.920	.000	SREF 87.1550 SQ.IN
[APPO04]	DA17.L1PT138.DRB 3.(819C7F5M4)(V107E23)(V7RS)	11.100	-14.250	24.920	.000	LREF 19.5545 INO-ES
[APPO17]	DA17.L1PT138.DRB 3.(819C7F5M4)(V107E23)(V7RS)	5.600	-14.250	24.920	.000	BREF 14.0502 INO-ES
[APPO02]	DA17.L1PT138.DRB 3.(819C7F5M4)(V107E23)(V7RS)	.000	-14.250	24.920	.000	XREF 12.5770 INO-ES
[APPO19]	DA17.L1PT138.DRB 3.(819C7F5M4)(V107E23)(V7RS)	-11.800	-14.250	24.920	.000	YREF 6.0000 INO-ES
[APPO03]	DA17.L1PT138.DRB 3.(819C7F5M4)(V107E23)(V7RS)	-24.100	-14.250	24.920	.000	ZREF 6.0000 INO-ES
						SCALE .0150

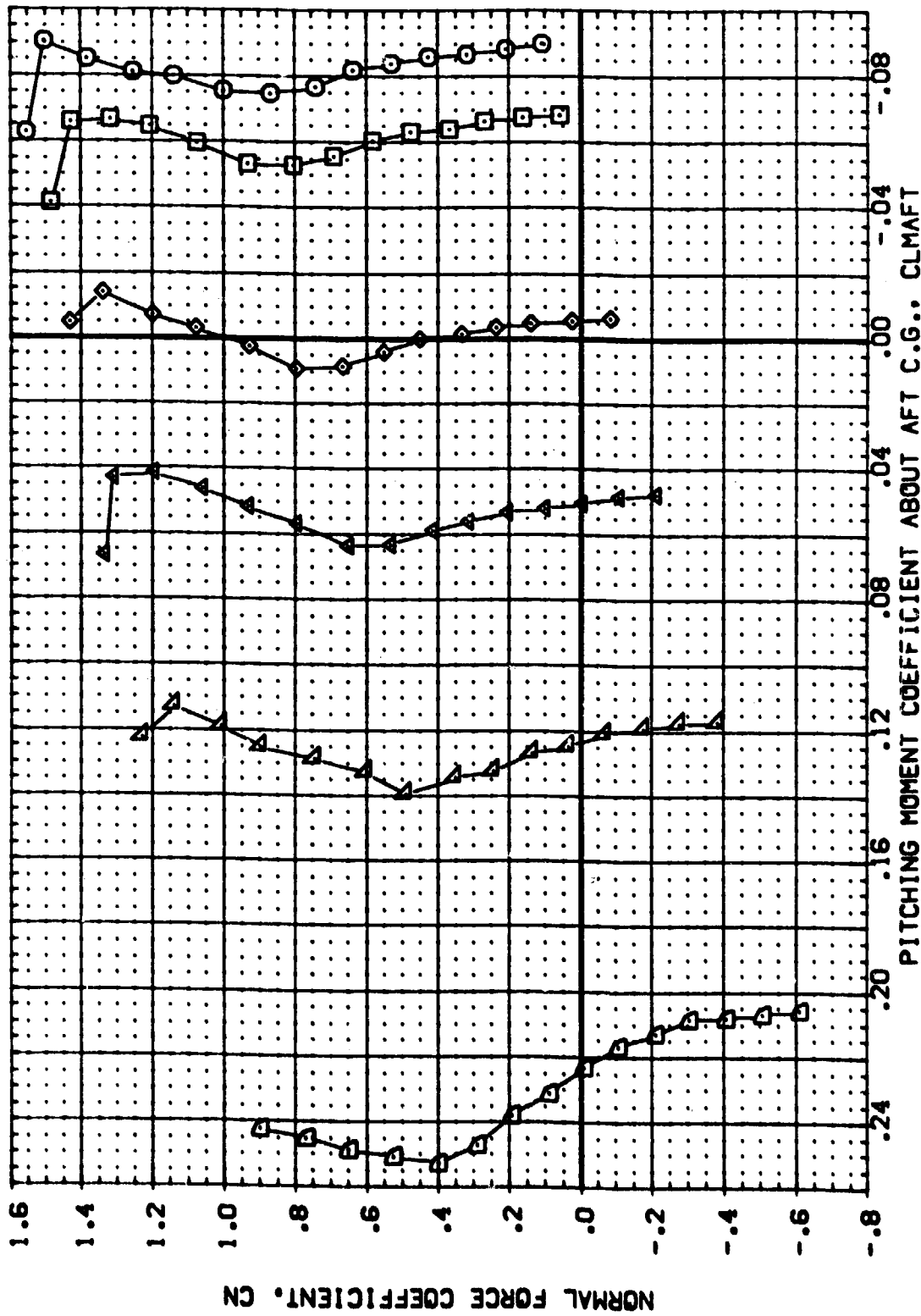


FIGURE 5 1398 ORBITER ELEVON DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BDFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
[APPO18]	DA17.L1PT138.DRB 3.(819C7F5M4)(V107E23)(V7RS)	14.700	-14.250	24.920	.000	SREF 87.1560 50.IN.
[APPO04]	DA17.L1PT138.DRB 3.(819C7F5M4)(V107E23)(V7RS)	11.100	-14.250	24.920	.000	LREF 19.3545 INCHES
[APPO17]	DA17.L1PT138.DRB 3.(819C7F5M4)(V107E23)(V7RS)	5.600	-14.250	24.920	.000	BREF 14.0502 INCHES
[APPO02]	DA17.L1PT138.DRB 3.(819C7F5M4)(V107E23)(V7RS)	.000	-14.250	24.920	.000	YMRP 12.5770 INCHES
[APPO19]	DA17.L1PT138.DRB 3.(819C7F5M4)(V107E23)(V7RS)	-11.800	-14.250	24.920	.000	ZMRP 6.0000 INCHES
[APPO03]	DA17.L1PT138.DRB 3.(819C7F5M4)(V107E23)(V7RS)	-24.100	-14.250	24.920	.000	SCALE .0150 SCALE

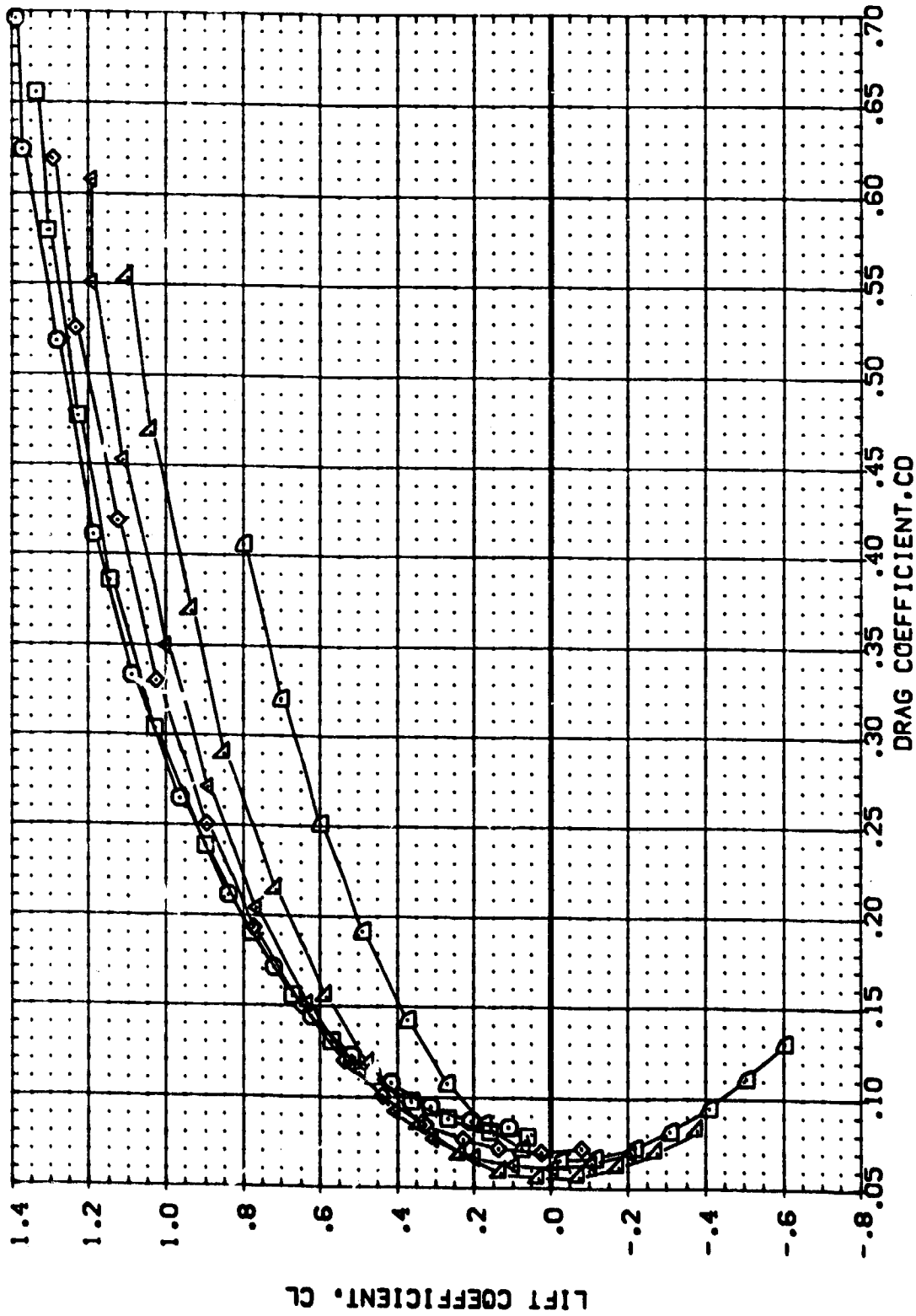


FIGURE 5 139B ORBITER ELEVON DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPDRK	ALOVER	REFERENCE INFORMATION
[RPP018]	DA17.LTPT 38.DRB 3.(B)SC77SM (V107E23) (VRS)	14.700	-14.250	24.520	.000	SRF 87.1550 SQ.IN.
[RPP019]	DA17.LTPT 38.DRB 3.(B)SC77SM (V107E23) (VRS)	11.100	-14.250	24.520	.000	SRF 19.3545 INO-ES
[RPP017]	DA17.LTPT 38.DRB 3.(B)SC77SM (V107E23) (VRS)	5.600	-14.250	24.520	.000	SRF 4.6502 INO-ES
[RPP002]	DA17.LTPT 38.DRB 3.(B)SC77SM (V107E23) (VRS)	.000	-14.250	24.520	.000	SRF 12.5770 INO-ES
[RPP015]	DA17.LTPT 38.DRB 3.(B)SC77SM (V107E23) (VRS)	-11.800	-14.250	24.520	.000	SRF .0000 INO-ES
[RPP003]	DA17.LTPT 38.DRB 3.(B)SC77SM (V107E23) (VRS)	-24.100	-14.250	24.520	.000	SRF 6.0000 INO-ES
						SCALE .0150

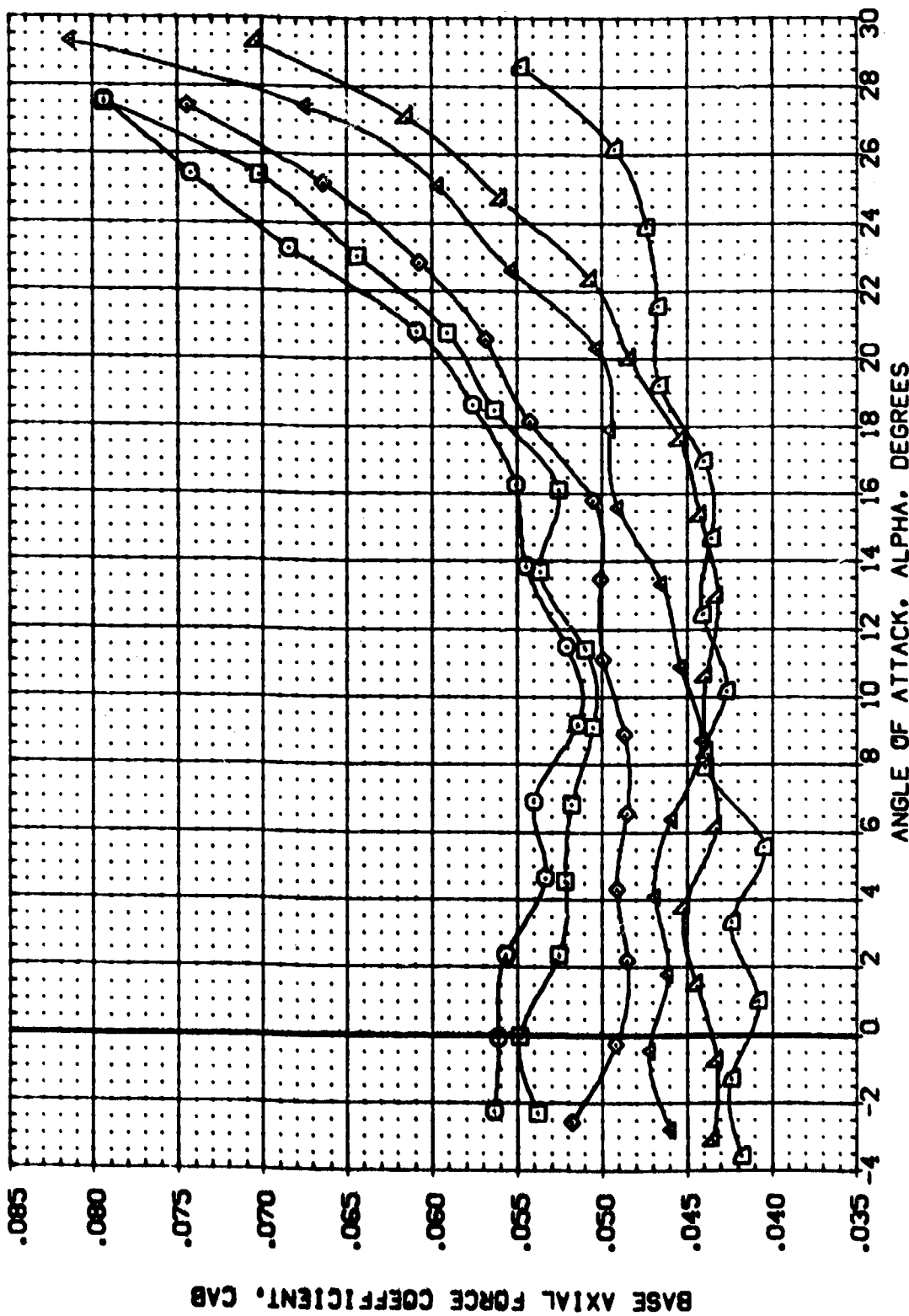


FIGURE 5 1398 ORBITER ELEVON DEFLECTION EFFECTS

(AJRN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DELTON	AILRON	BDFLAP	SPOBRN	REFERENCE INFORMATION	
[440018]	DA17ALPT138.DR8 3.(B1SC75M4)(V107E23)(V7R5)	14.700	.000	-14.250	24.920	SREF	87.1560 SQ.IN.
[440019]	DA17ALPT138.DR8 3.(B1SC75M4)(V107E23)(V7R5)	11.100	.000	-14.250	24.920	LREF	19.3545 INCHES
[440020]	DA17ALPT138.DR8 3.(B1SC75M4)(V107E23)(V7R5)	5.600	.000	-14.250	24.920	BREF	14.0502 INCHES
[440021]	DA17ALPT138.DR8 3.(B1SC75M4)(V107E23)(V7R5)	-1.800	.000	-14.250	24.920	YMRP	12.5770 INCHES
[440022]	DA17ALPT138.DR8 3.(B1SC75M4)(V107E23)(V7R5)	-24.100	.000	-14.250	24.920	ZMRP	6.0000 INCHES
						SCALE	.0150

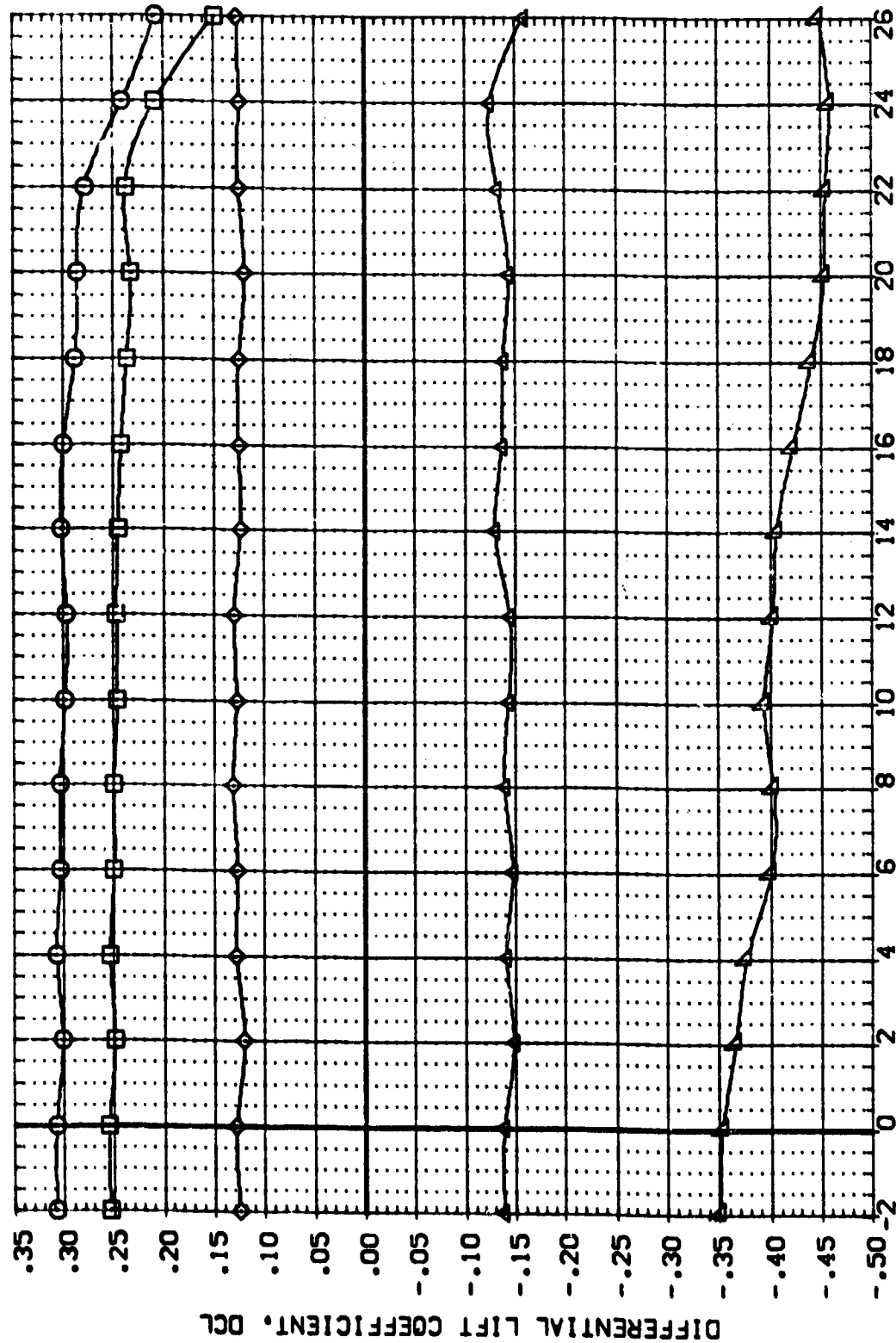


FIGURE 6 139B ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DELTA	AILRON	BOFLAP	SPORBK	REFERENCE INFORMATION
[APP018]	DA17, L1PT1, 38.098 3. (81SC7FSM) (V107E23) (V7RS)	14.700	.000	-14.250	24.920	SREF 87.1550 50 IN
[APP019]	DA17, L1PT1, 38.098 3. (81SC7FSM) (V107E23) (V7RS)	11.100	.000	-14.250	24.920	LREF 19.2545 IN-ES
[APP020]	DA17, L1PT1, 38.098 3. (81SC7FSM) (V107E23) (V7RS)	5.800	.000	-14.250	24.920	BREF 14.0502 IN-ES
[APP021]	DA17, L1PT1, 38.098 3. (81SC7FSM) (V107E23) (V7RS)	-11.800	.000	-14.250	24.920	TRAP 12.5770 IN-ES
[APP022]	DA17, L1PT1, 38.098 3. (81SC7FSM) (V107E23) (V7RS)	-24.100	.000	-14.250	24.920	TRAP 6.0000 IN-ES
						SCALE .0150

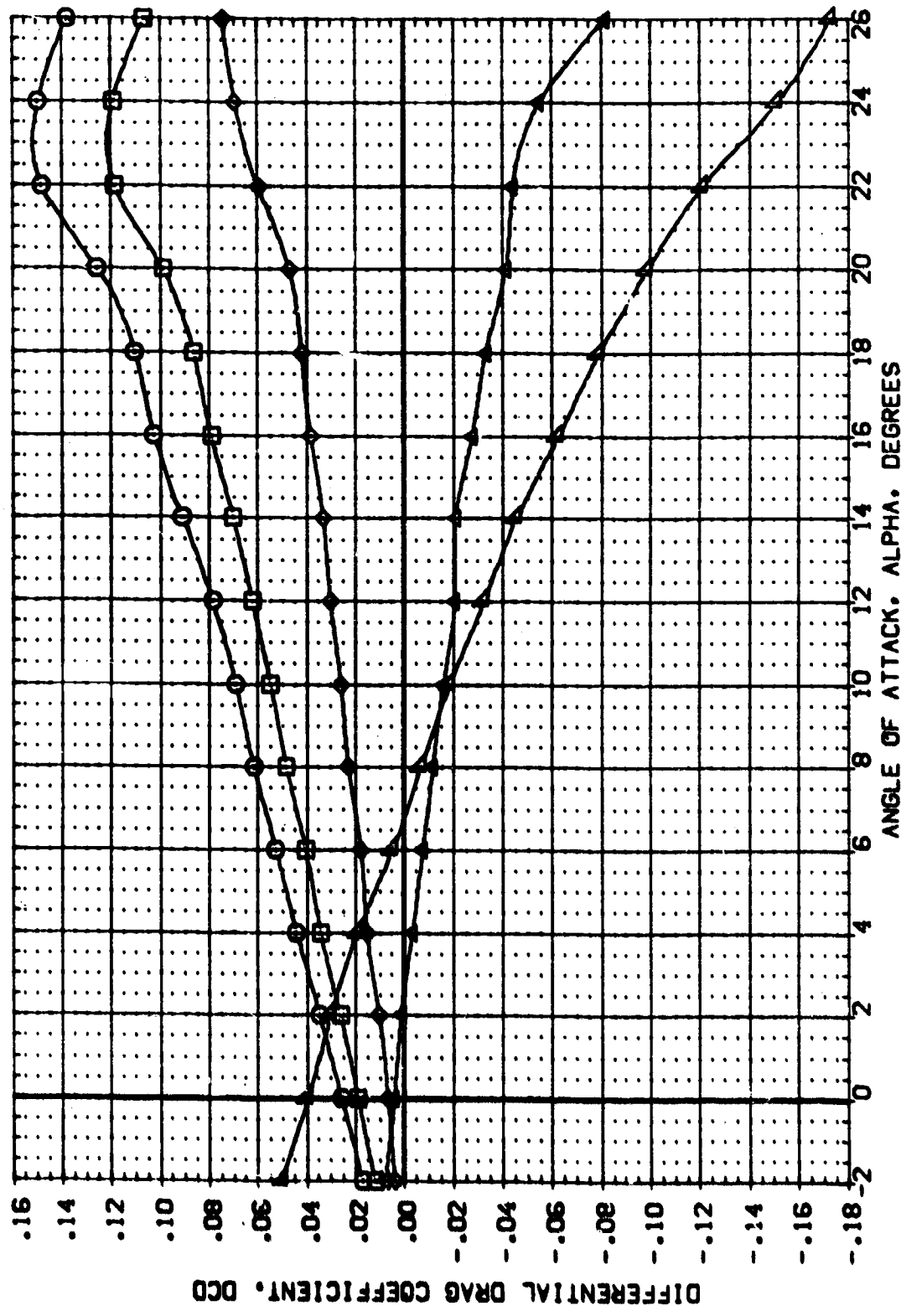


FIGURE 6 1398 ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

(AJRN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DEL VON	AIRLON	BOFLAP	SPOBRK	REFERENCE INFORMATION
[14P018]	DA17.LTPT138.DRB 3.(B:SC7F5M4)(V107E23)(V7R5)	14.700	.000	-14.250	24.920	SREF 87.1560 SO.IN.
[14P004]	DA17.LTPT138.DRB 3.(B:SC7F5M4)(V107E23)(V7R5)	11.100	.000	-14.250	24.920	LREF 19.3545 INO-ES
[14P017]	DA17.LTPT138.DRB 3.(B:SC7F5M4)(V107E23)(V7R5)	5.600	.000	-14.250	24.920	BREF 14.0502 INO-ES
[14P019]	DA17.LTPT138.DRB 3.(B:SC7F5M4)(V107E23)(V7R5)	-11.800	.000	-14.250	24.920	XMRP 2.5770 INO-ES
[14P003]	DA17.LTPT138.DRB 3.(B:SC7F5M4)(V107E23)(V7R5)	-24.100	.000	-14.250	24.920	ZMRP .0000 INO-ES
						SCALE .0150

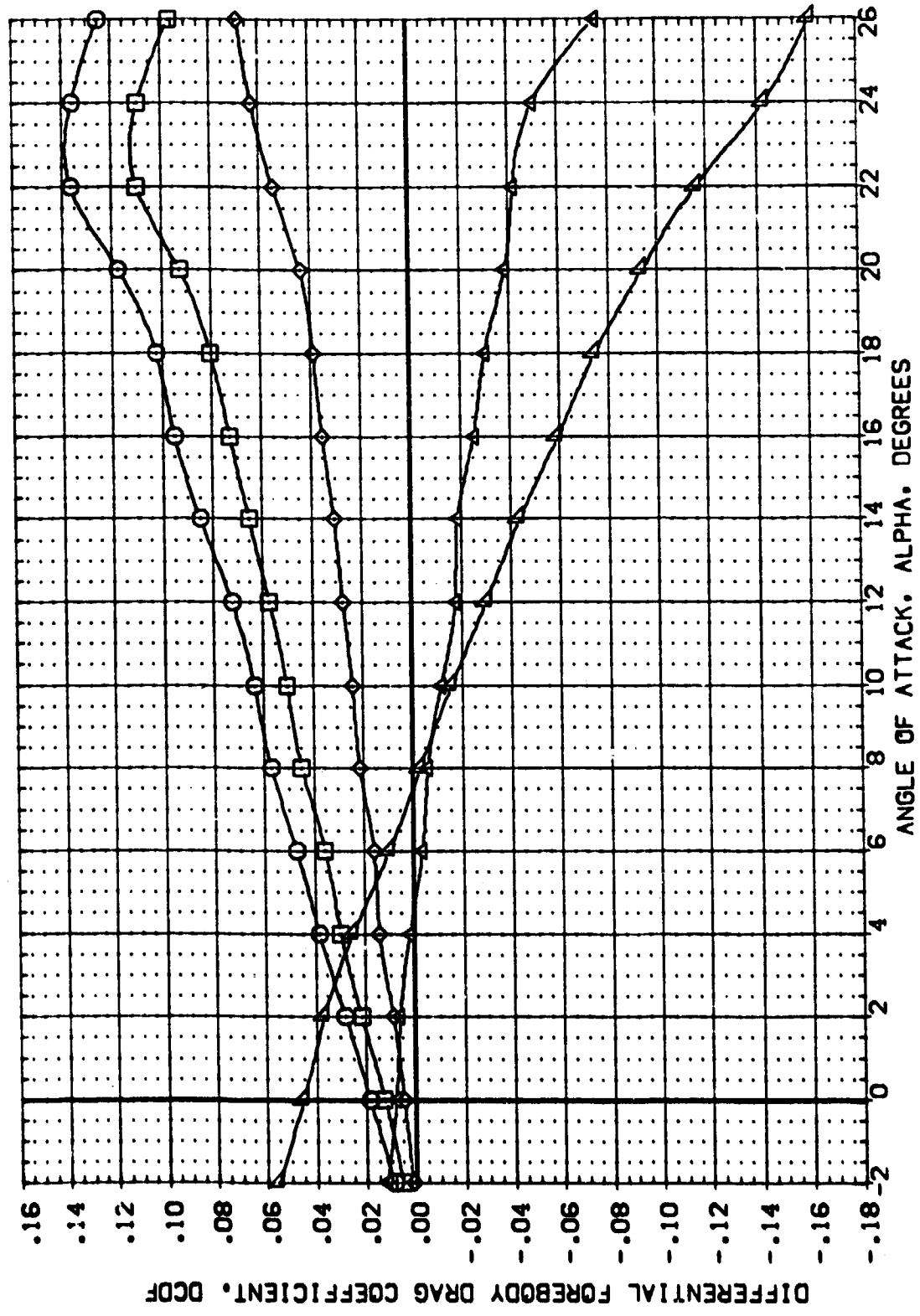


FIGURE 6 139B ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL CONFIGURATION DESCRIPTION DELTA AIRLON BOFLAP SPOBRK REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DELTA	AIRLON	BOFLAP	SPOBRK	REFERENCE INFORMATION
[MPO18]	DA17,LTPT138,ORB 3,(B)SC75M4)(V107E23)(V7RS)	14.700	.000	-14.250	24.920	SREF 87.1560 50.IN.
[MPO04]	DA17,LTPT138,ORB 3,(B)SC75M4)(V107E23)(V7RS)	11.100	.000	-14.250	24.920	LREF 19.3345 INCHES
[MPO17]	DA17,LTPT138,ORB 3,(B)SC75M4)(V107E23)(V7RS)	5.600	.000	-14.250	24.920	BREF 12.0502 INCHES
[MPO19]	DA17,LTPT138,ORB 3,(B)SC75M4)(V107E23)(V7RS)	-11.800	.000	-14.250	24.920	XREF 6.0000 INCHES
[MPO03]	DA17,LTPT138,ORB 3,(B)SC75M4)(V107E23)(V7RS)	-24.100	.000	-14.250	24.920	ZREF 6.0000 INCHES
						SCALE .0150

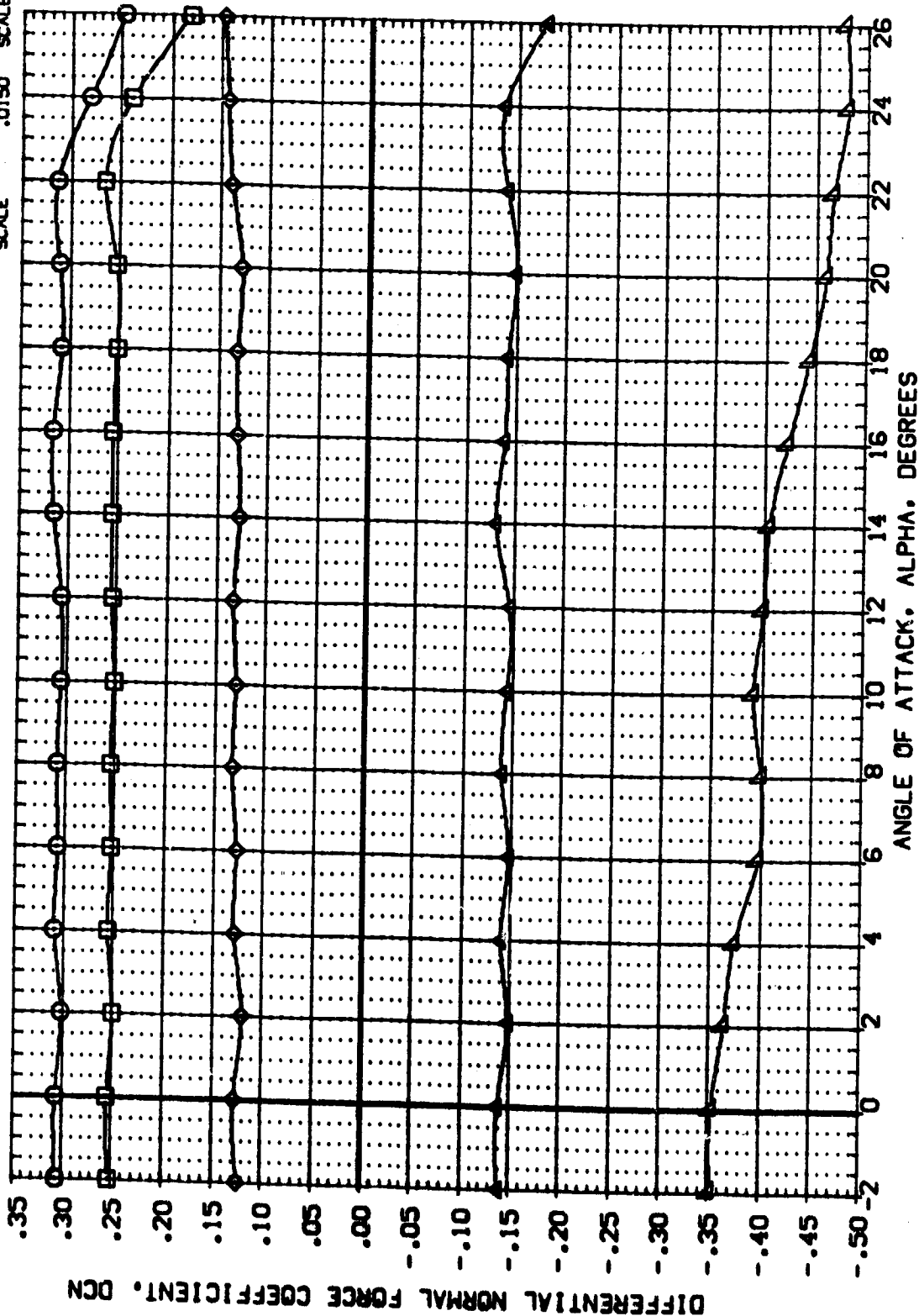


FIGURE 6 1398 ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL CONFIGURATION DESCRIPTION DELVN AIRRN BOFLAP SPOBRK REFERENCE INFORMATION SO.IN.

[HPO18] DA17.L1PT138.DRB 3.(819C7F54)(V107E23)(V7RS) 14.700 .000 -14.250 24.920 SREF 87.1560 INC-ES

[HPOC4] DA17.L1PT138.DRB 3.(819C7F54)(V107E23)(V7RS) 11.100 .000 -14.250 24.920 LREF 19.3545 INC-ES

[HPO17] DA17.L1PT138.DRB 3.(819C7F54)(V107E23)(V7RS) 5.600 .000 -14.250 24.920 XREF 12.5770 INC-ES

[HPO19] DA17.L1PT138.DRB 3.(819C7F54)(V107E23)(V7RS) -11.800 .000 -14.250 24.920 YREF 6.0000 INC-ES

[HPO203] -24.100 .000 -14.250 24.920 ZREF .0150 SCALE

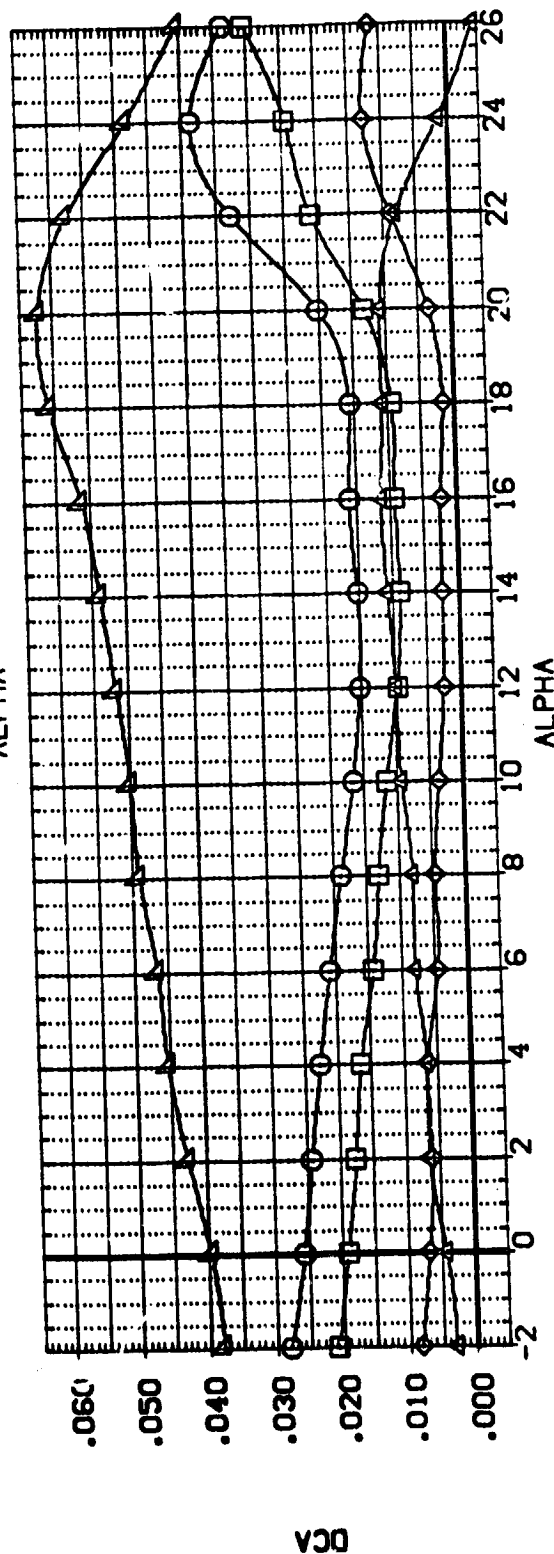
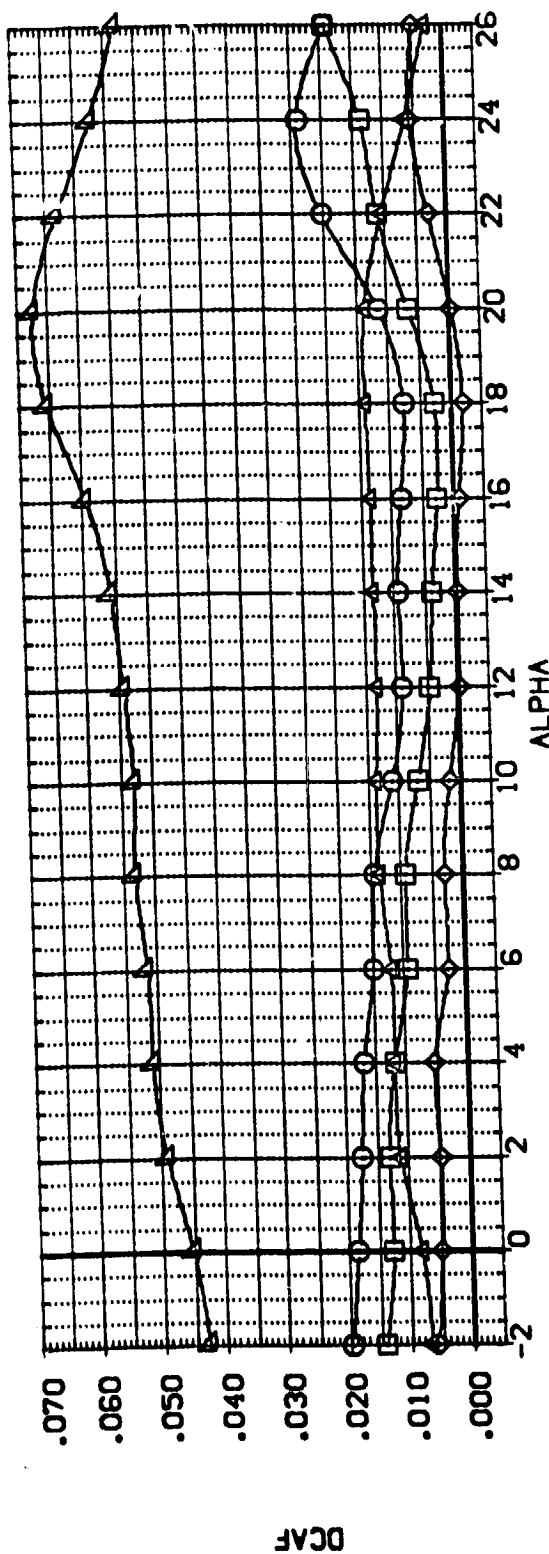


FIGURE 6 139B ORBITER ELEVN DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DEL VON	AIRLON	BOFLAP	SPDBRK	REFERENCE INFORMATION
[1-PP018]	OA17ALPT138.098 3. (B1SC7F5M4)(V107E23)(V7R5)	14.700	.000	-14.250	24.920	SREF 87.1560 SQ. IN.
[1-PP004]	OA17ALPT138.098 3. (B1SC7F5M4)(V107E23)(V7R5)	11.100	.000	-14.250	24.920	LREF 19.3545 INCHES
[1-PP017]	OA17ALPT138.098 3. (B1SC7F5M4)(V107E23)(V7R5)	5.600	.000	-14.250	24.920	BREF 14.0502 INCHES
[1-PP019]	OA17ALPT138.098 3. (B1SC7F5M4)(V107E23)(V7R5)	-11.900	.000	-14.250	24.920	YREF 12.5770 INCHES
[1-PP003]	OA17ALPT138.098 3. (B1SC7F5M4)(V107E23)(V7R5)	-24.100	.000	-14.250	24.920	ZREF 6.0000 INCHES
						SCALE .0150 INCHES

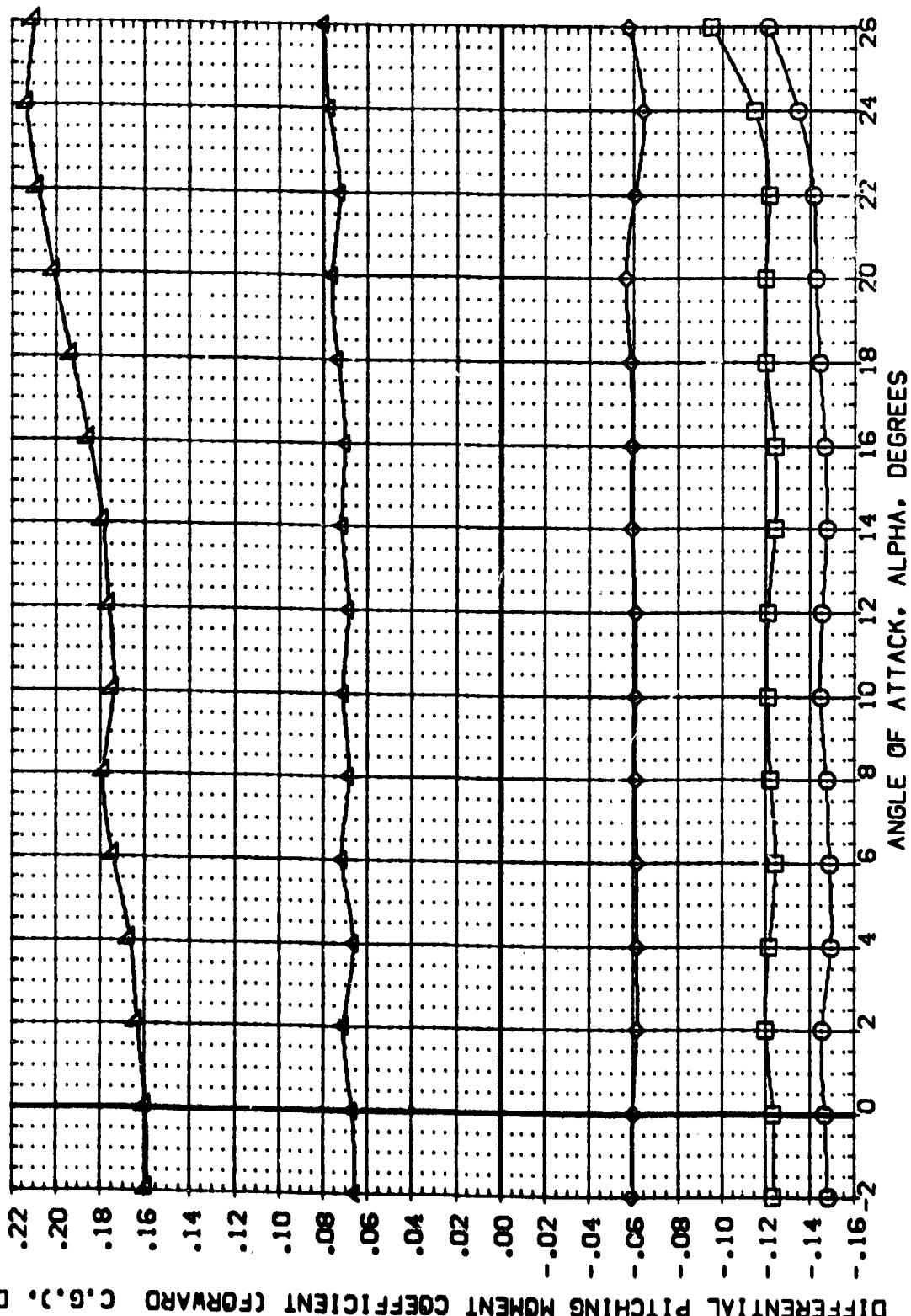


FIGURE 6 1398 ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

(AJRN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DELTON	AIRON	BDF LAP	SPDRK	REFERENCE INFORMATION
[HPO018]	DA17.L1PT138.DRB 3.(819C7F5M4)(V107E23)(V7RS)	14.700	.000	-14.250	24.920	SREF 87.1560 SO.IN.
[HPO004]	DA17.L1PT138.DRB 3.(819C7F5M4)(V107E23)(V7RS)	11.100	.000	-14.250	24.920	LREF 19.3545 INCHES
[HPO017]	DA17.L1PT138.DRB 3.(819C7F5M4)(V107E23)(V7RS)	5.600	.000	-14.250	24.920	BREF 14.0502 INCHES
[HPO019]	DA17.L1PT138.DRB 3.(819C7F5M4)(V107E23)(V7RS)	-11.800	.000	-14.250	24.920	XMRP .0000 INCHES
[HPO003]	DA17.L1PT138.DRB 3.(819C7F5M4)(V107E23)(V7RS)	-24.100	.000	-14.250	24.920	ZMRP 6.0000 INCHES
						SCALE .0150

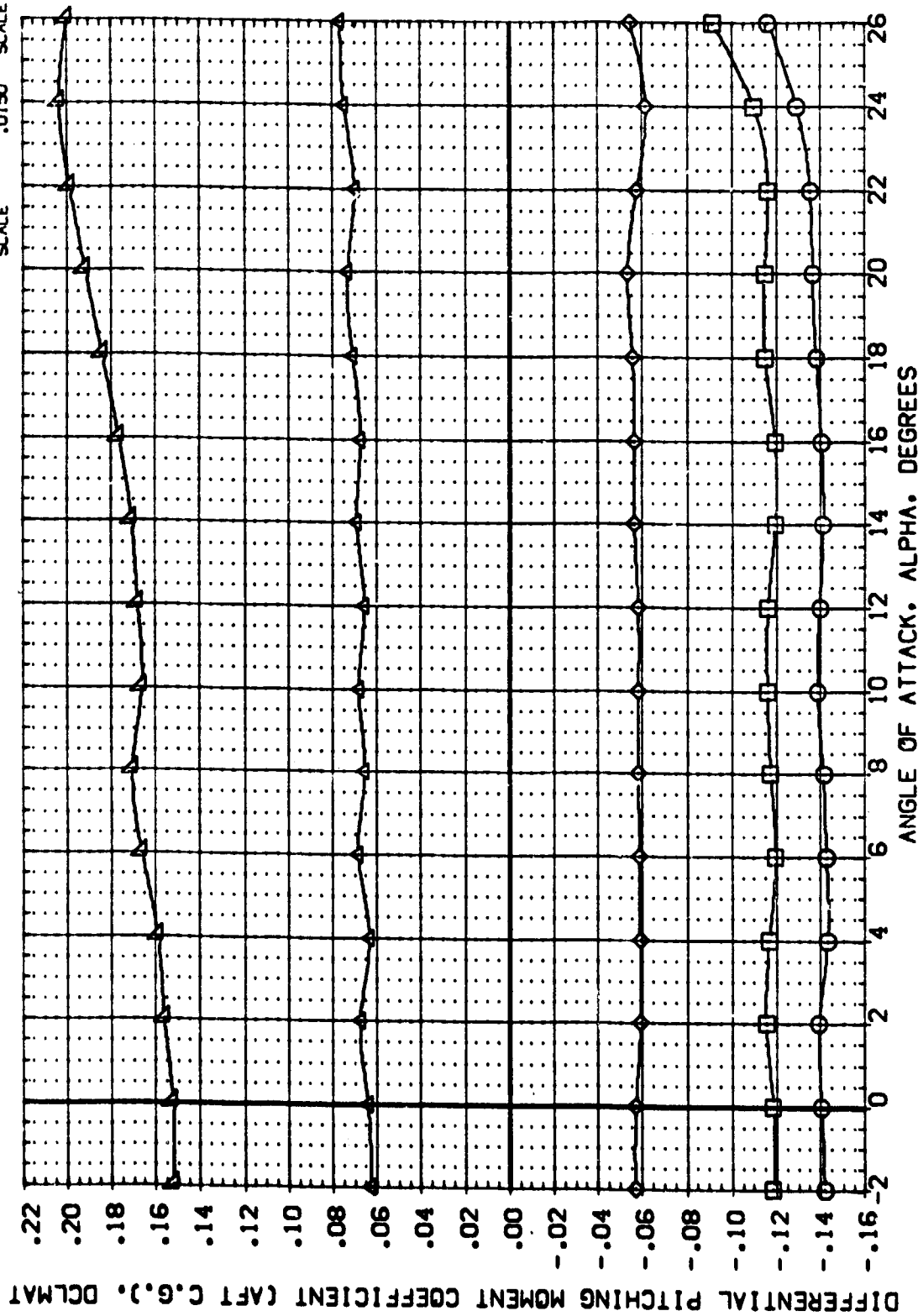


FIGURE 6 139B ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL: 139B ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

CONFIGURATION DESCRIPTION:

DELTON	AIRLON	BDF LAP	SPOBRK	REFERENCE INFORMATION
14.700	.000	-14.250	24.920	SREF 87.1560 SQ. IN.
11.100	.000	-14.250	24.920	LREF 19.3545 INCHES
5.600	.000	-14.250	24.920	BREF 14.0502 INCHES
-11.800	.000	-14.250	24.920	XMRP 12.5770 INCHES
-24.100	.000	-14.250	24.920	YMRP 6.0000 INCHES
				ZMRP 6.0000 INCHES
				SCALE .0150

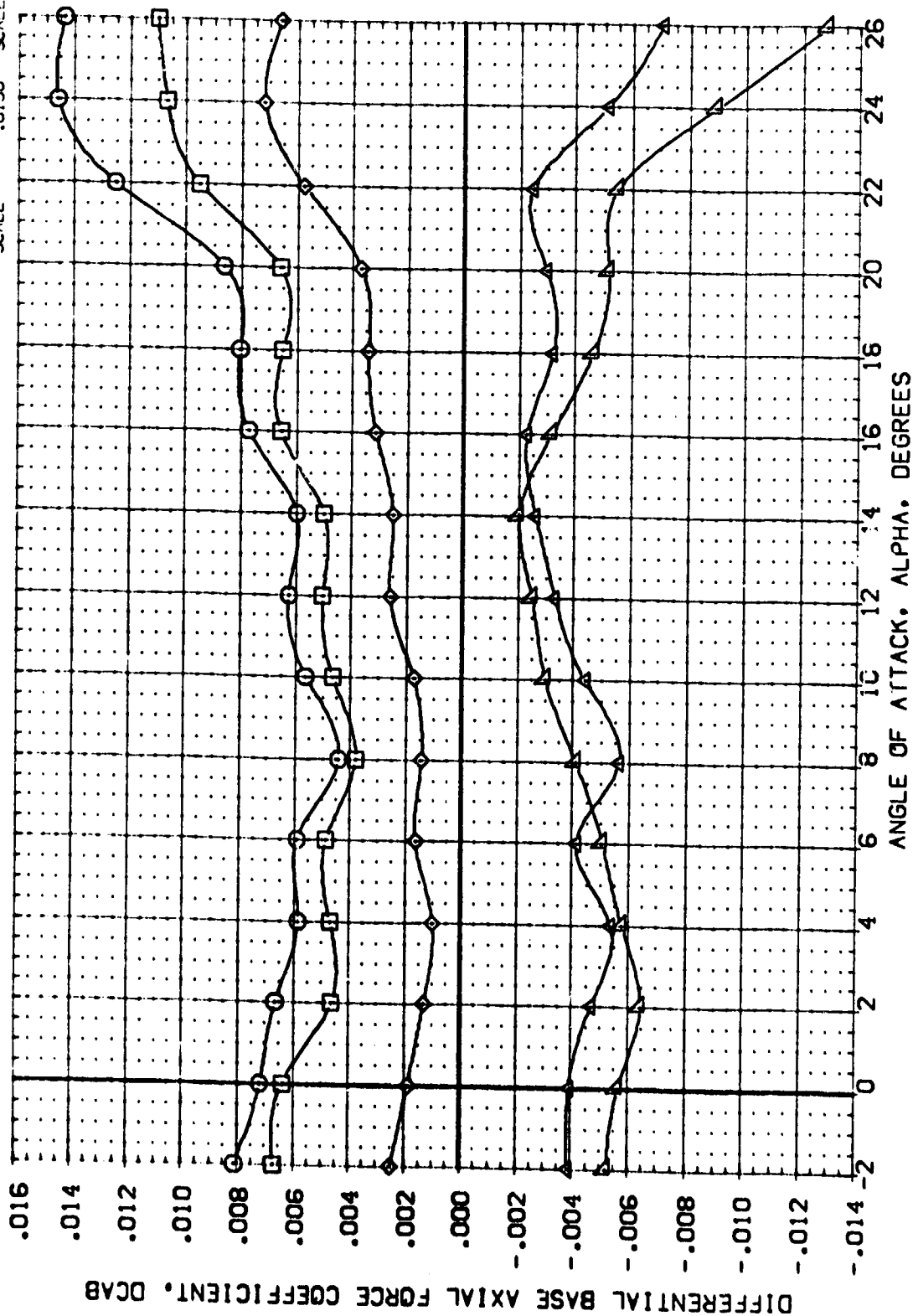


FIGURE 6 139B ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

(AIRN/L = 4.70)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DELTON	AIRLON	BOFLAP	SPOBRK	REFERENCE INFORMATION
[HPO018]	0A17ALPT138.0R8 3.(81SC7F5M4)(V107E23)(V7R5)	14.700	.000	-14.250	24.920	SREF 87.1560 SQ.IN.
[HPO004]	0A17ALPT138.0R8 3.(81SC7F5M4)(V107E23)(V7R5)	11.100	.000	-14.250	24.920	LREF 19.3545 INCHES
[HPO017]	0A17ALPT138.0R8 3.(81SC7F5M4)(V107E23)(V7R5)	5.600	.000	-14.250	24.920	BREF 14.0502 INCHES
[HPO019]	0A17ALPT138.0R8 3.(81SC7F5M4)(V107E23)(V7R5)	-11.800	.000	-14.250	24.920	XMRP .0000 INCHES
[HPO003]	0A17ALPT138.0R8 3.(81SC7F5M4)(V107E23)(V7R5)	-24.100	.000	-14.250	24.920	YMRP 6.0000 INCHES
						SCALE .0150

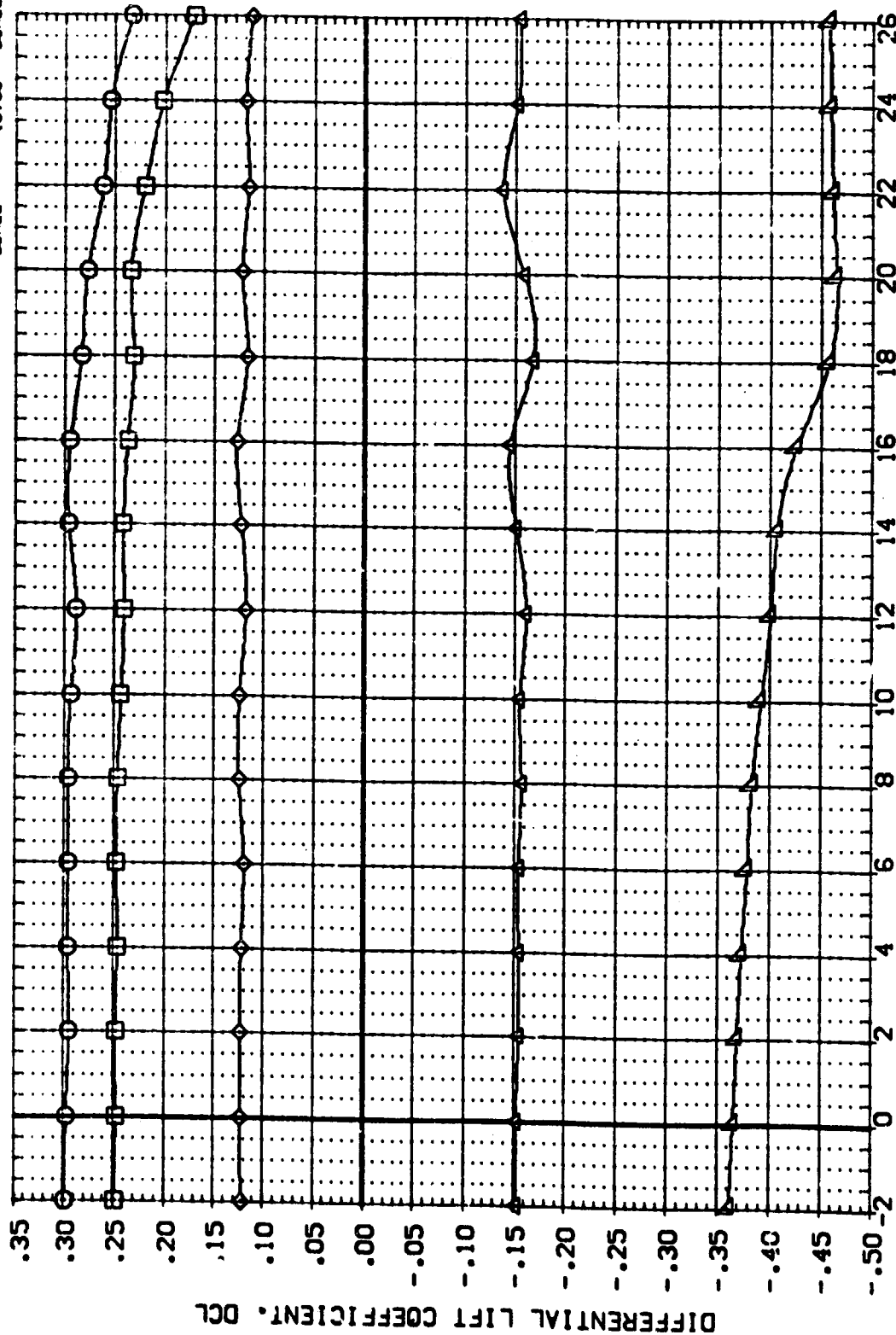


FIGURE 6 139B ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

(AJRN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DEL VON	AIRLON	BOFLAP	SPOBRK	REFERENCE INFORMATION
[HPO018]	DA17.L1PT138.DR8 3.(81SC7F5M4)(V107E23)(V7R5)	14.700	.000	-14.250	24.920	SREF 87.1560 SO.IN.
[HPO004]	DA17.L1PT138.DR8 3.(81SC7F5M4)(V107E23)(V7R5)	11.100	.000	-14.250	24.920	LREF 19.3545 INO-ES
[HPO017]	DA17.L1PT138.DR8 3.(81SC7F5M4)(V107E23)(V7R5)	5.600	.000	-14.250	24.920	BREF 14.0503 INO-ES
[HPO019]	DA17.L1PT138.DR8 3.(81SC7F5M4)(V107E23)(V7R5)	-11.800	.000	-14.250	24.920	XMRP 12.5770 INO-ES
[HPO003]	DA17.L1PT138.DR8 3.(81SC7F5M4)(V107E23)(V7R5)	-24.100	.000	-14.250	24.920	ZMRP 6.0000 INO-ES
						SCALE .0150 SCALE

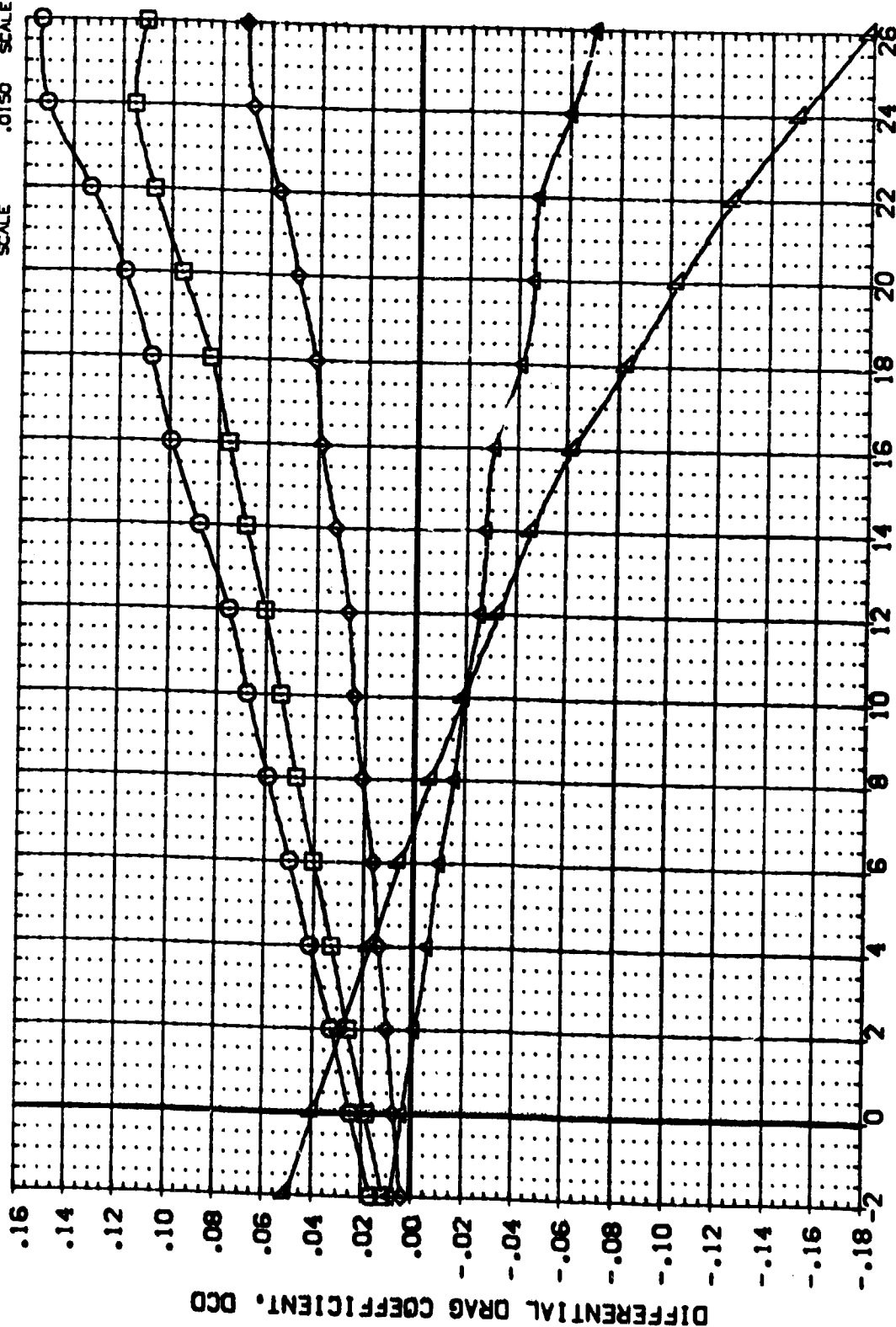


FIGURE 6 1398 ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DEL VON	AIR ON	BOFLAP	SPDRK	REFERENCE INFORMATION
(HPO018)	DA17.L1PT136.DRB 3.(819C7F5M4)(V107E23)(V7RS)	14.700	.000	-14.250	24.920	SREF 87.1560 50. IN:
(HPO04)	DA17.L1PT136.DRB 3.(819C7F5M4)(V107E23)(V7RS)	11.100	.000	-14.250	24.920	LREF 19.3545 INCHES
(HPO17)	DA17.L1PT136.DRB 3.(819C7F5M4)(V107E23)(V7RS)	5.600	.000	-14.250	24.920	SREF 14.0502 INCHES
(HPO19)	DA17.L1PT136.DRB 3.(819C7F5M4)(V107E23)(V7RS)	-11.800	.000	-14.250	24.920	XREF 12.5770 INCHES
(HPO03)	DA17.L1PT136.DRB 3.(819C7F5M4)(V107E23)(V7RS)	-24.100	.000	-14.250	24.920	YREF 6.0000 INCHES
						ZREF .0150 SCALE

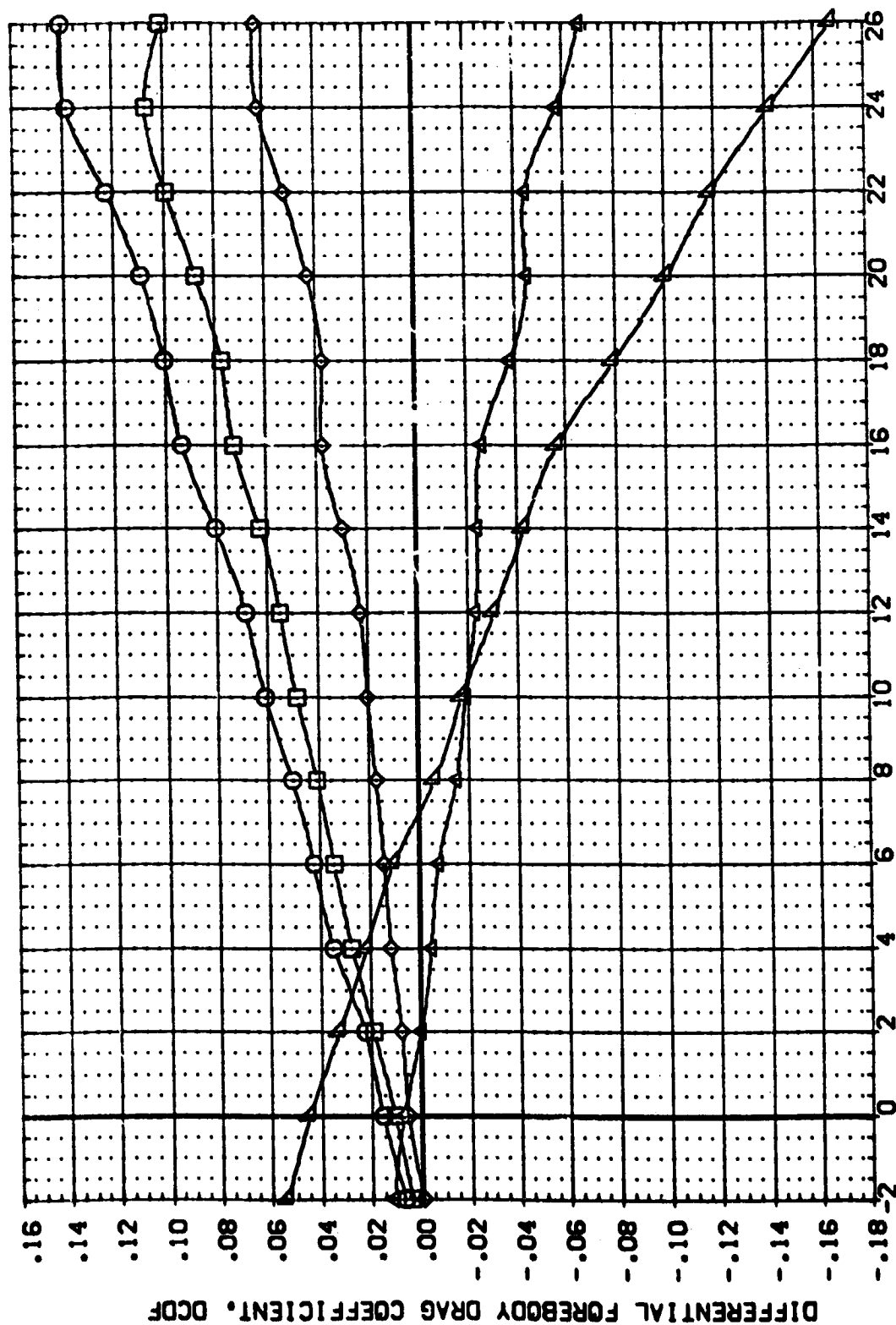


FIGURE 6 139B ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DELTA	AIRLON	BOFLAP	SPDRBK	REFERENCE INFORMATION
(H)P018)	DA17.L1PT138.088 3.(815C7F5M)(V107E23)(V7RS)	14.700	.000	-14.250	24.920	SREF 87.1560 50.IN.
(H)P004)	DA17.L1PT138.088 3.(815C7F5M)(V107E23)(V7RS)	11.100	.000	-14.250	24.920	LREF 19.3545 IN-ES
(H)P017)	DA17.L1PT138.088 3.(815C7F5M)(V107E23)(V7RS)	5.600	.000	-14.250	24.920	BREF 14.0502
(H)P019)	DA17.L1PT138.088 3.(815C7F5M)(V107E23)(V7RS)	-11.800	.000	-14.250	24.920	XREF 12.5770 IN-ES
(H)P003)	DA17.L1PT138.088 3.(815C7F5M)(V107E23)(V7RS)	-24.100	.000	-14.250	24.920	YREF 6.0000 IN-ES
					ZREF .0150 SCALE	IN-ES

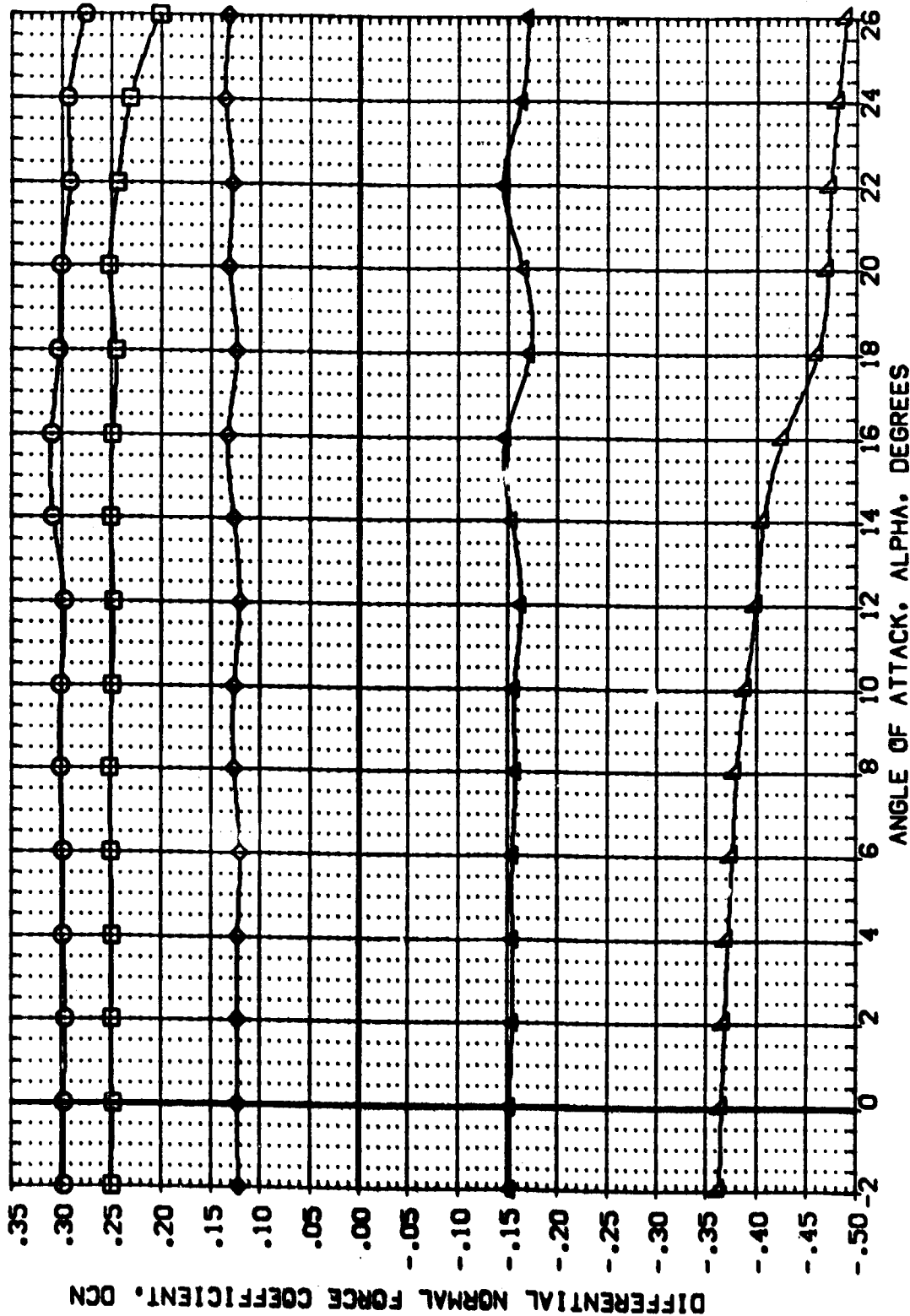


FIGURE 6 1398 ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DELTON	ALTRON	BOFLAP	SPOBRK	REFERENCE INFORMATION
[HPP018]	GA17,LTPT1,38,OR8 3,(B1SC7F5M4)(V107E23)(VTR5)	14.700	.000	-14.250	24.920	SREF 87.1560 INCHES
[HPP004]	GA17,LTPT1,38,OR8 3,(B1SC7F5M4)(V107E23)(VTR5)	11.100	.000	-14.250	24.920	LREF 19.3545 INCHES
[HPP017]	GA17,LTPT1,38,OR8 3,(B1SC7F5M4)(V107E23)(VTR5)	5.600	.000	-14.250	24.920	BREF 14.0502 INCHES
[HPP019]	GA17,LTPT1,38,OR8 3,(B1SC7F5M4)(V107E23)(VTR5)	-11.800	.000	-14.250	24.920	XTRP 12.5770 INCHES
[HPP003]	GA17,LTPT1,38,OR8 3,(B1SC7F5M4)(V107E23)(VTR5)	-24.100	.000	-14.250	24.920	YTRP 6.0000 INCHES
					SCALE	SCALE .0150

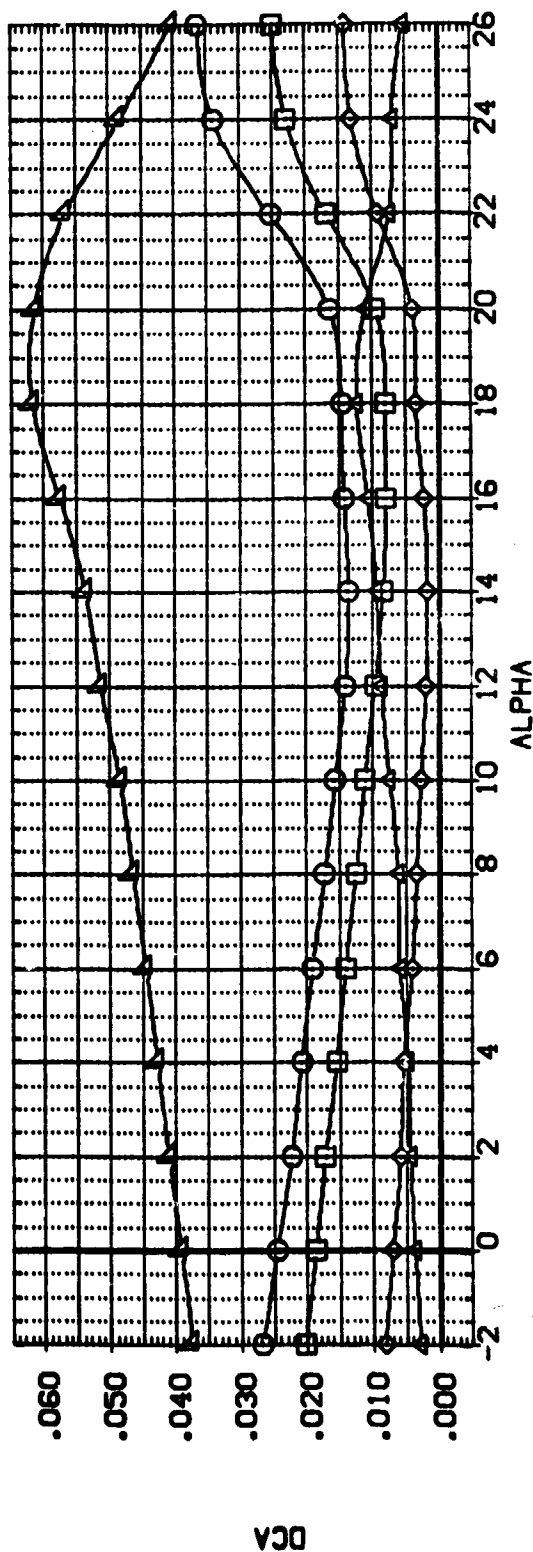
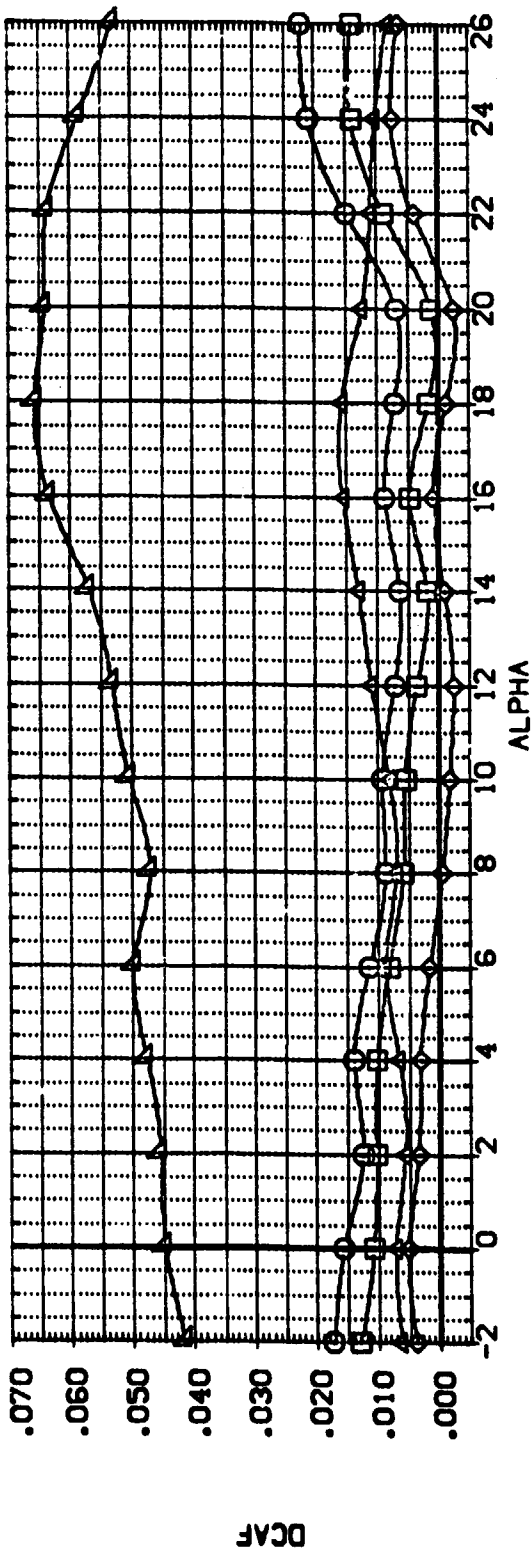


FIGURE 6 1398 ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

(AJRN/L = 10.00

DATA SET SYMBOL: 00018, 00004, 00017, 00019, 00003

CONFIGURATION DESCRIPTION: DA17.LTPT138.088 3.(8)SC75M4.(V)07E23.(V)R5, DA17.LTPT138.088 3.(8)SC75M4.(V)07E23.(V)R5, DA17.LTPT138.088 3.(8)SC75M4.(V)07E23.(V)R5, DA17.LTPT138.088 3.(8)SC75M4.(V)07E23.(V)R5

DELTON: 14.700, 11.100, 5.600, -11.600, -24.100

AILRON: .000, .000, .000, .000, .000

BOFLAP: -14.250, -14.250, -14.250, -14.250, -14.250

SPDRK: 24.520, 24.520, 24.520, 24.520, 24.520

REFERENCE INFORMATION: SREF 87.1560, LREF 19.3545, BREF 14.0502, XMRP 12.5770, YMRP .0000, ZMRP 6.0000, SCALE .0150

SD.IN: 50.1N, IN-ES, IN-ES, IN-ES, IN-ES

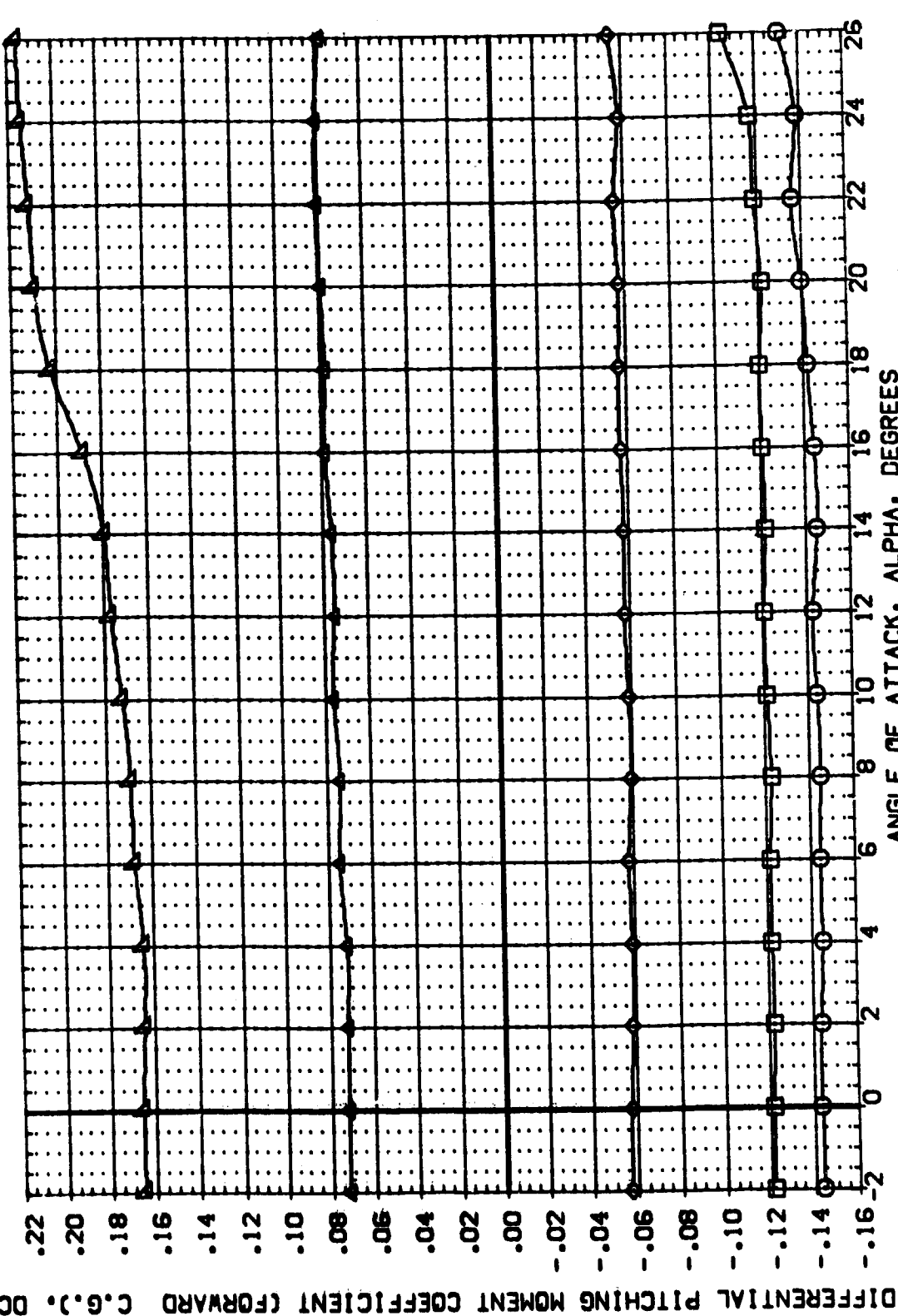


FIGURE 6 139B ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

(A)RNL/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DEL VON	AILRON	BDF LAP	SPOBRK	REFERENCE INFORMATION
[HPO018]	DA17.L1PT138.DRB 3.(819CTFSM)(V107E23)(VRS)	14.700	.000	-14.250	24.920	SREF 87.1560 50.IN.
[HPO004]	DA17.L1PT138.DRB 3.(819CTFSM)(V107E23)(VRS)	11.100	.000	-14.250	24.920	LREF 19.3545 INCHES
[HPO017]	DA17.L1PT138.DRB 3.(819CTFSM)(V107E23)(VRS)	5.600	.000	-14.250	24.920	BREF 14.0502 INCHES
[HPO003]	DA17.L1PT138.DRB 3.(819CTFSM)(V107E23)(VRS)	-11.800	.000	-14.250	24.920	YREF 12.5770 INCHES
		-24.100	.000	-14.250	24.920	ZREF 6.0000 INCHES
						SCALE .0150

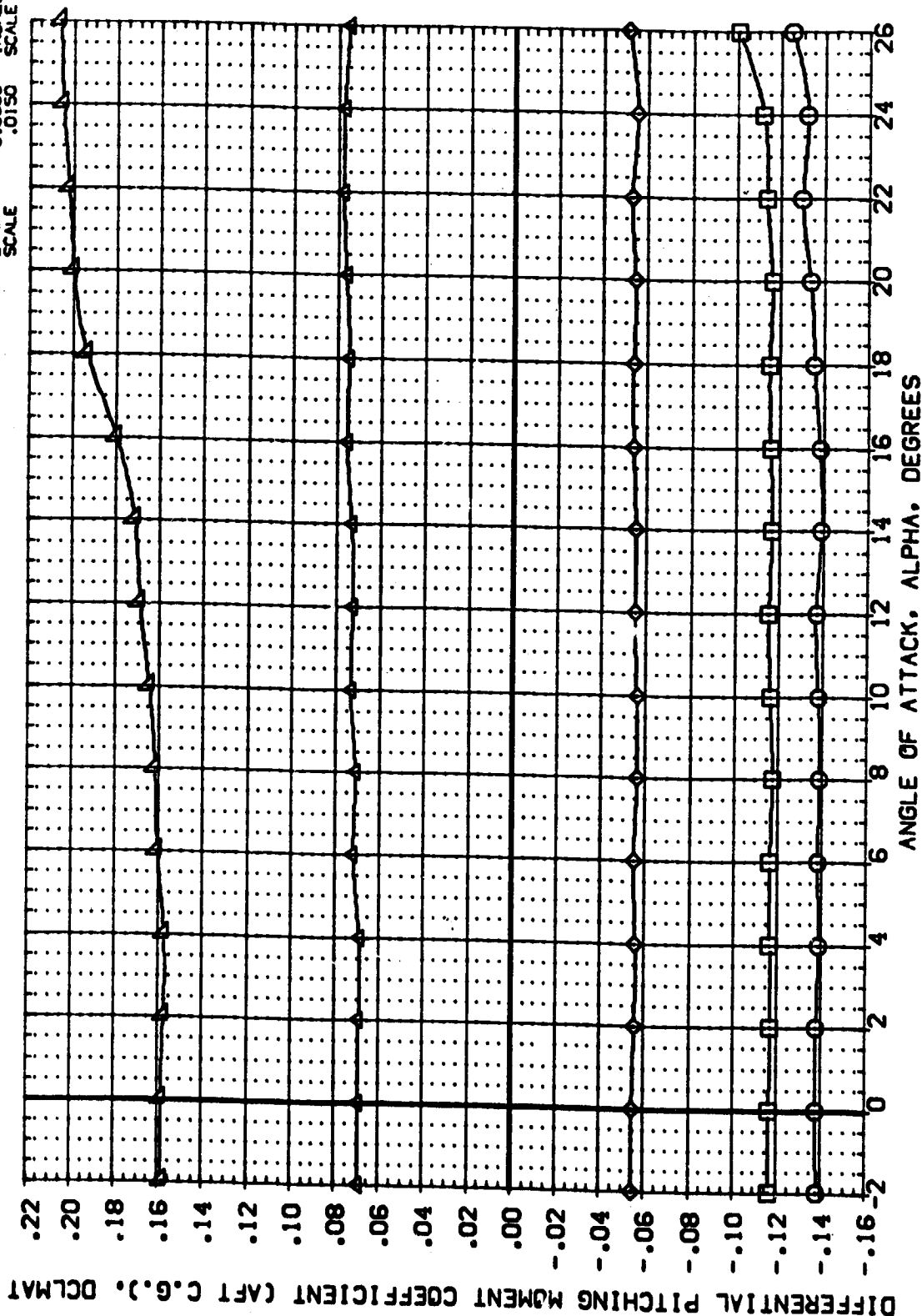


FIGURE 6 1398 ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

SPC: 8 CA17.L: 138.CRB 3.(B19C7FS4)(V107E23)(V7RS)

SPC: 9 CA17.L: 138.CRB 3.(B19C7FS4)(V107E23)(V7RS)

SPC: 10 CA17.L: 138.CRB 3.(B19C7FS4)(V107E23)(V7RS)

SPC: 11 CA17.L: 138.CRB 3.(B19C7FS4)(V107E23)(V7RS)

DELTON AILRON BOCLAP SPOBRK REFERENCE INFORMATION SO.IN:

14.700 .000 -14.250 24.970 SREF 87.1560 INCHES

11.100 .000 -14.250 24.970 LREF 19.3545 INCHES

5.600 .000 -14.250 24.970 BREF 14.0502 INCHES

-11.600 .000 -14.250 24.970 XMRP 12.5770 INCHES

-24.100 .000 -14.250 24.970 YMRP 6.0000 INCHES

SCALE .0150

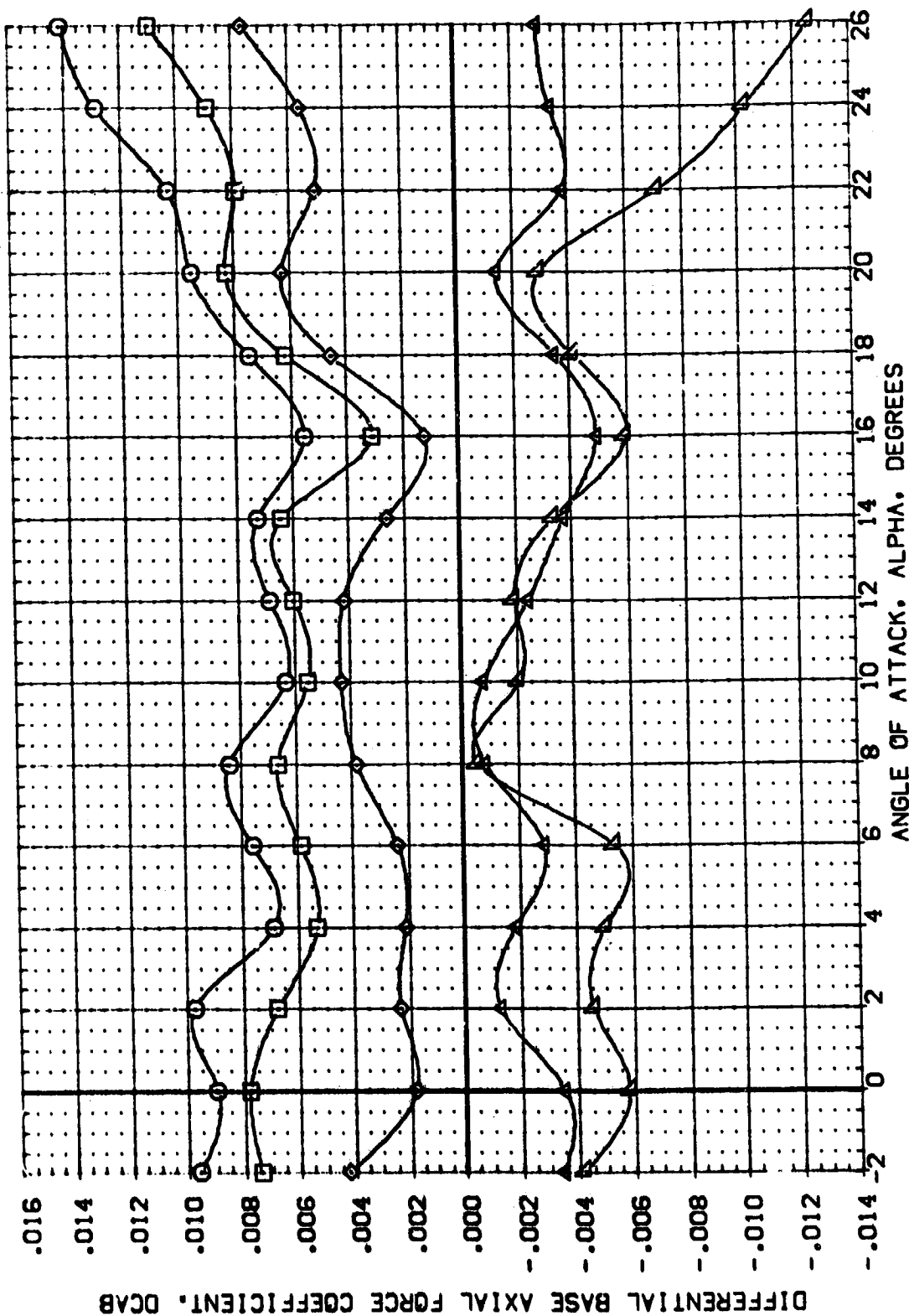


FIGURE 6 1398 ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 10.00



0A17.LIPT138.ORB 3.(B19C7F5M4)(W107E23)(V7R5) (NPP018)

PARAMETRIC VALUES			DATA SOURCE			REFERENCE INFORMATION		
ALPHA	RN/L	ELEVON	DELTON	DELTON	SREF	87.1560	SO.IN	INCHES
10.000	.000	BOFLAP	14.700	11.100	REF	19.3545	INCHES	
20.000	AILRON	RUDDER	-14.250	14.700	BREF	14.0502	INCHES	
30.000	SPOBRK		.000	5.600	XMRP	12.5770	INCHES	
	BETA		-11.800	-11.800	YMRP	6.0000	INCHES	
					ZMRP	.0150	SCALE	

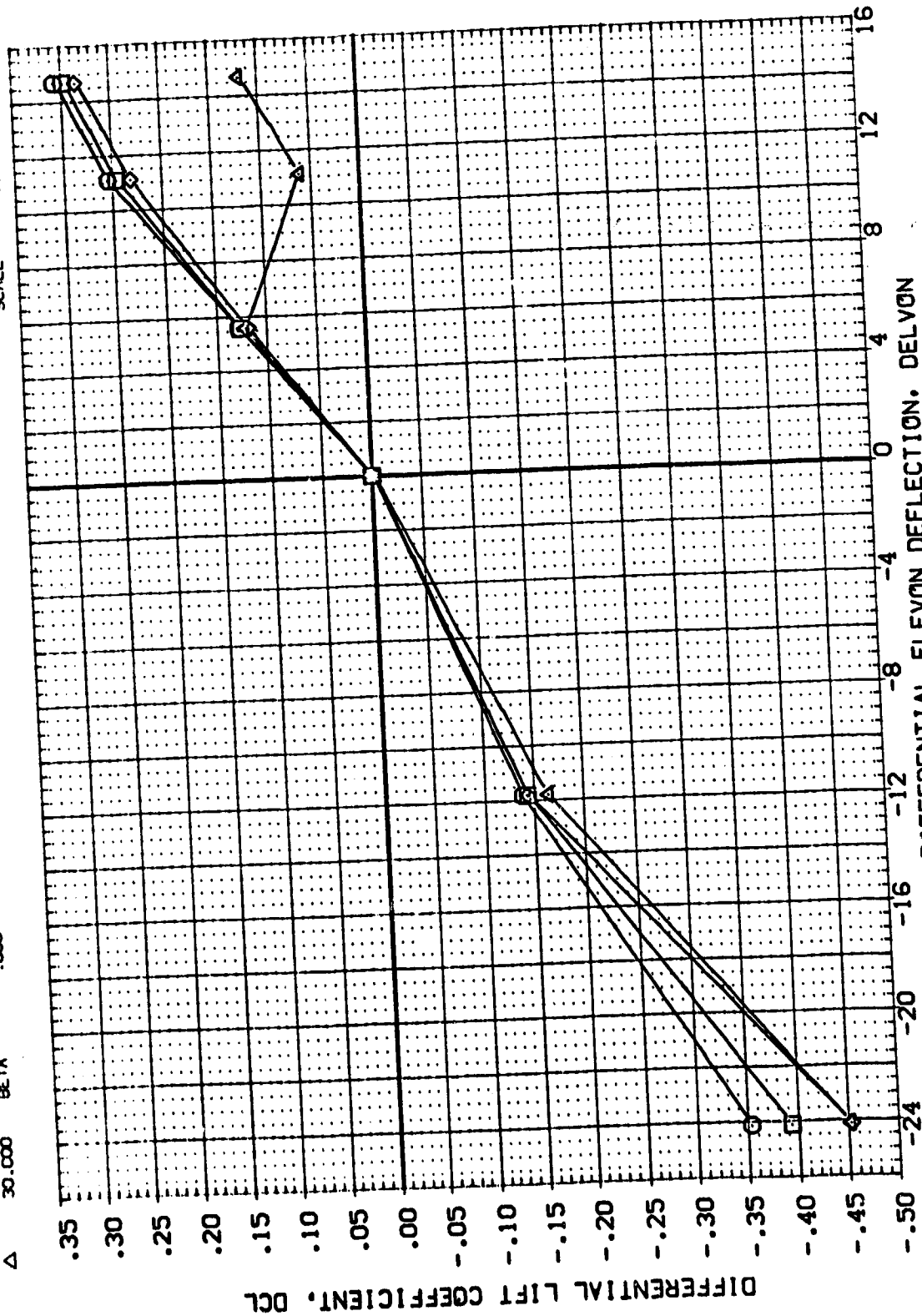
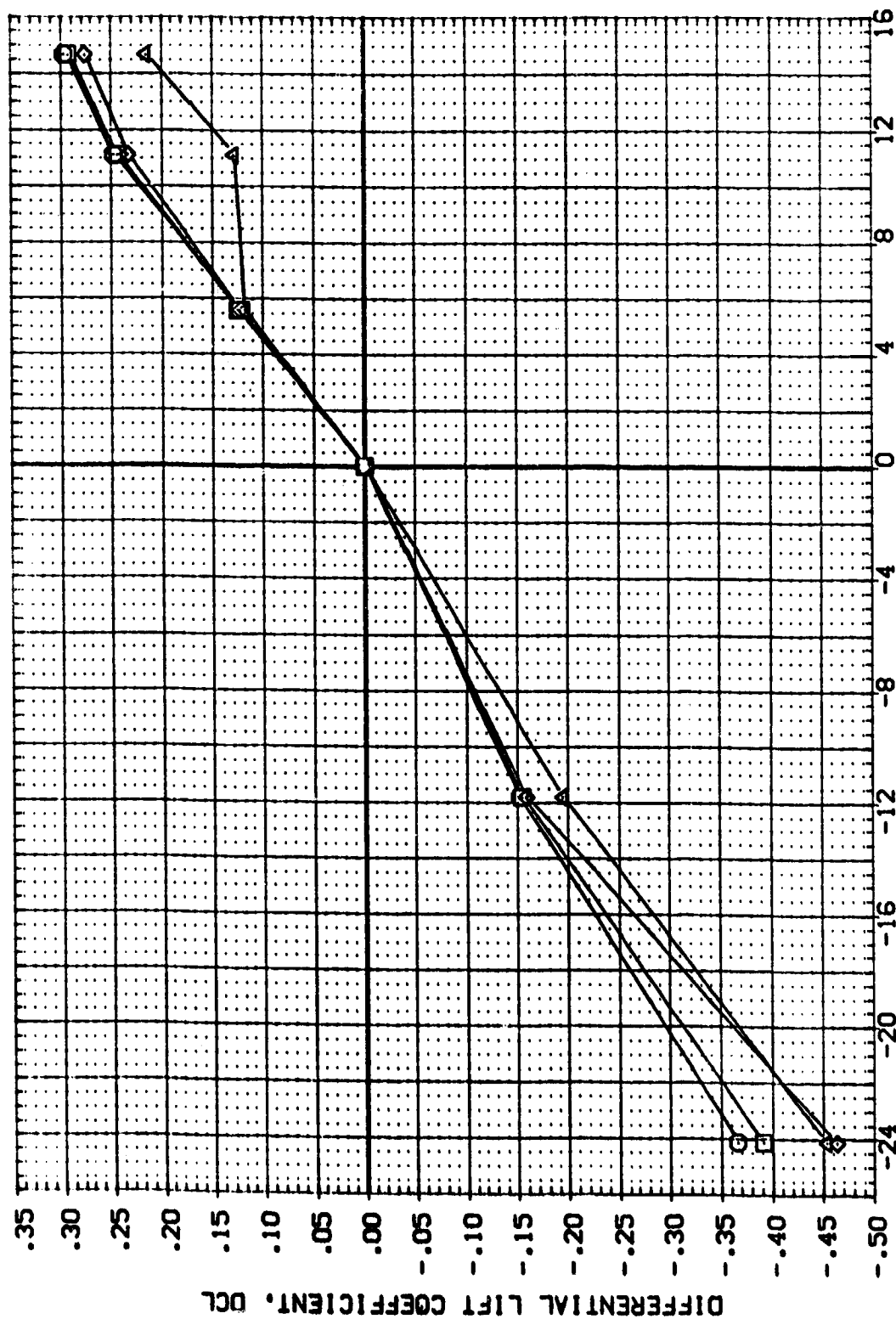


FIGURE 6 139B ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

(NPP018)

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE		REFERENCE INFORMATION	
○	.000	RV/L	14.700	DELVON	SREF	87.1560
□	10.000	AILRON	-14.250	NPP018	LREF	19.3545
◇	20.000	SPDRK	.000	NPP017	BREF	14.0502
△	30.000	BETA	24.920	NPP015	YPRP	12.5770
			.000		ZMRP	6.0000
					SCALE	.0150



DIFFERENTIAL ELEVON DEFLECTION, DELVON

FIGURE 6 139B ORBITER DEFLECTION INCREMENTAL EFFECTS

GA17.LTPT138.QRB 3.(B19C7F5M4)(W107E23)(V7R5) (NPP018)

SYMBOL	ALPHA	RNVL	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	.000		4.700 ELEVON	DELVN	SREF 87.1560 SO. IN. INCHES
□	10.000	AILRON	.000 BDF LAP	NPP002	LREF 19.3545 INCHES
◇	20.000	SPDBRK	24.920 RUDDER	NPP004	BREF 14.0502 INCHES
△	30.000	BETA	.000	NPP003	YMRP 12.5770 INCHES
					ZMRP 6.0000 INCHES
					SCALE .0150 INCHES

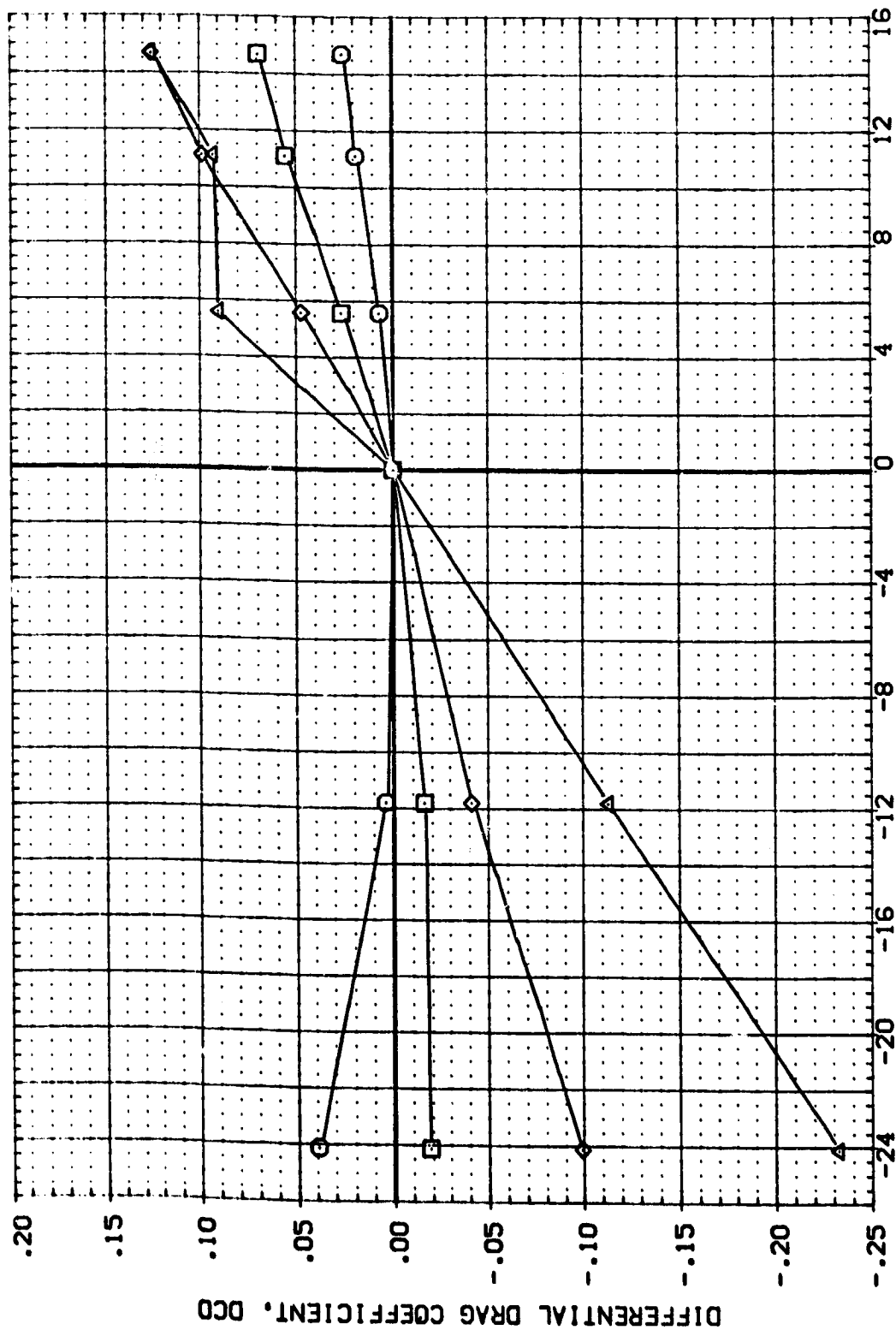
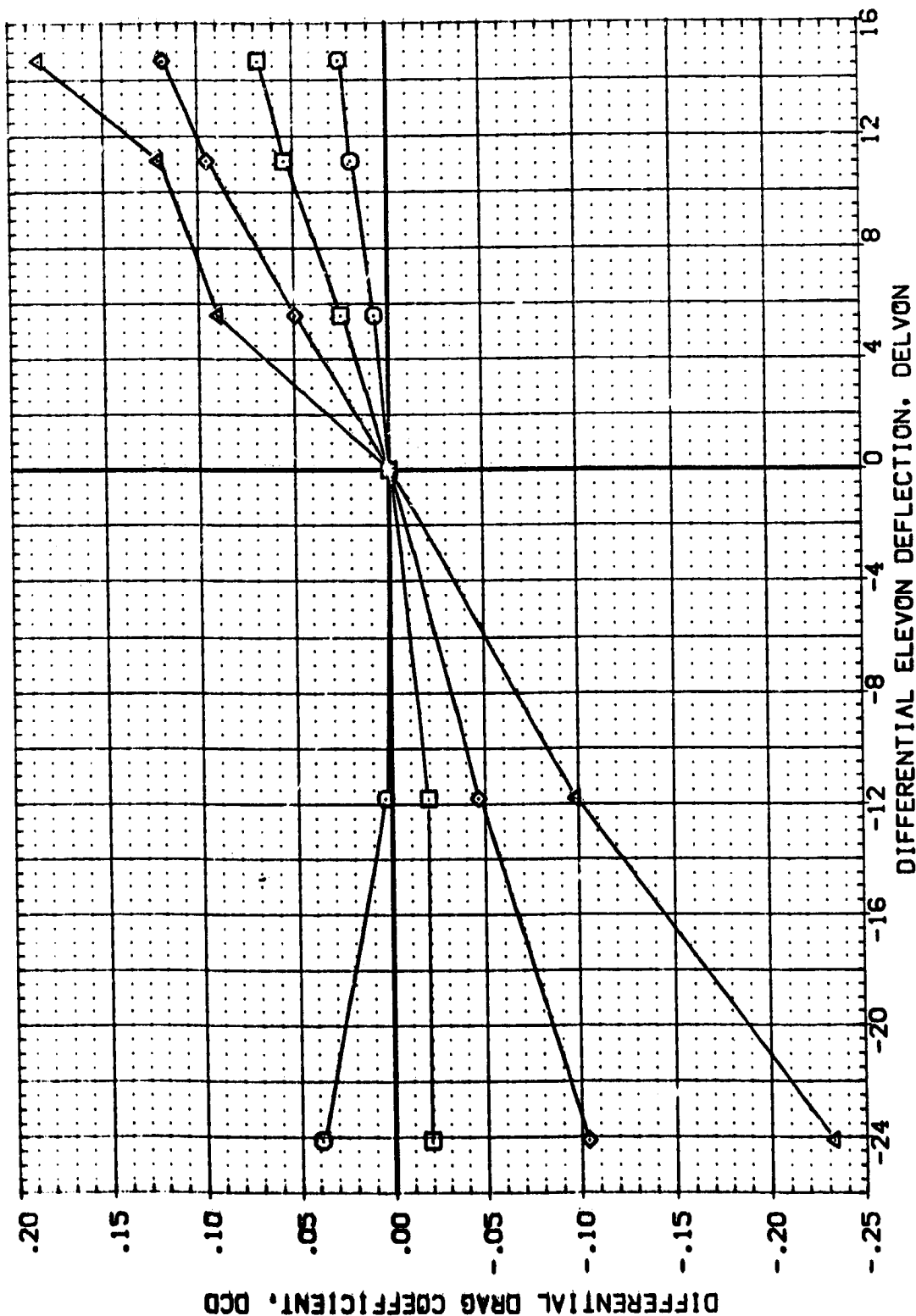


FIGURE 6 139B ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

0A17.LIPT138.ORB 3.(B19C7F5M4)(W107E23)(V7R5) (NPP018)

SYMBOL	PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION		
	ALPHA	RNVL	ELEVON	BOFLAP	DELTON	DELTON	SREF	SO, IN.	
○	.000		10.000	.000	14.700	11.100	19.3545	INCHES	
□	10.000	AILRON	.000	BOFLAP	NPP018	.000	14.0502	INCHES	
◇	20.000	SPOBRK	24.920	RUDDER	NPP017	-24.100	12.5770	INCHES	
△	30.000	BETA	.000		NPP019		6.0000	INCHES	
							ZMRP	INCHES	
							SCALE	.0150	



DIFFERENTIAL ELEVON DEFLECTION, DELTON

FIGURE 6 1398 ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS



0A17.LIPT138.ORB 3.(B19C7F5M4)(W107E23)(V7R5) (NPP018)

SYMBOL	ALPHA	RN/L	PARAMETRIC VALUES	DATA SOURCE	DELTON	DELTON	REFERENCE INFORMATION
○	.000		4.700	14.700	NPP004	11.100	SREF 87.1560
□	10.000	AILRON	.000	-14.250	NPP018	.000	LREF 19.3545
◇	20.000	SPDRK	24.920	.000	NPP017	.000	BREF 14.0502
△	30.000	BETA	.000	NPP019	NPP003	-24.100	YNRP 12.5770
							ZNRP 6.0000
							INCHES .0150

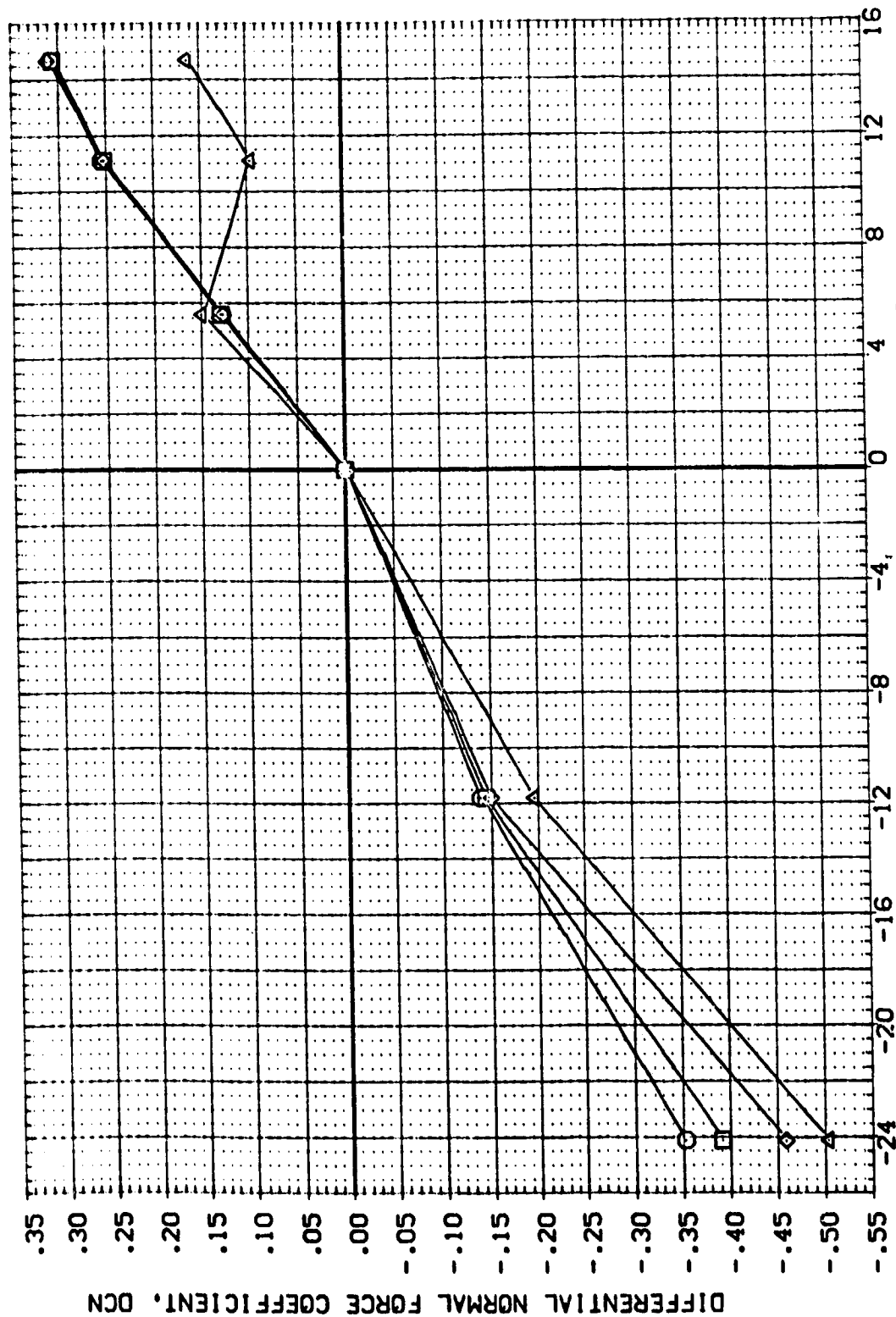


FIGURE 6 1398 ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

0A17.LTPT138.ORB 3.(B19C7F5M4)(W107E23)(V7R5) (NPP018)

SYMBOL	PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION	
	ALPHA	RV/L	ELEVON	DELTON	DELTON	SREF	SO.IN.
□	.000	AILRON	.000	14.700	11.100	LREF	INCHES
◇	10.000	SPDRK	24.920	-14.250	.000	BREF	
△	20.000	BETA	.000	.000	-24.100	XRRP	INC-ES
	30.000			-11.800		YRRP	INC-ES
						ZRRP	INC-ES
						SCALE	SCALE
							.0150

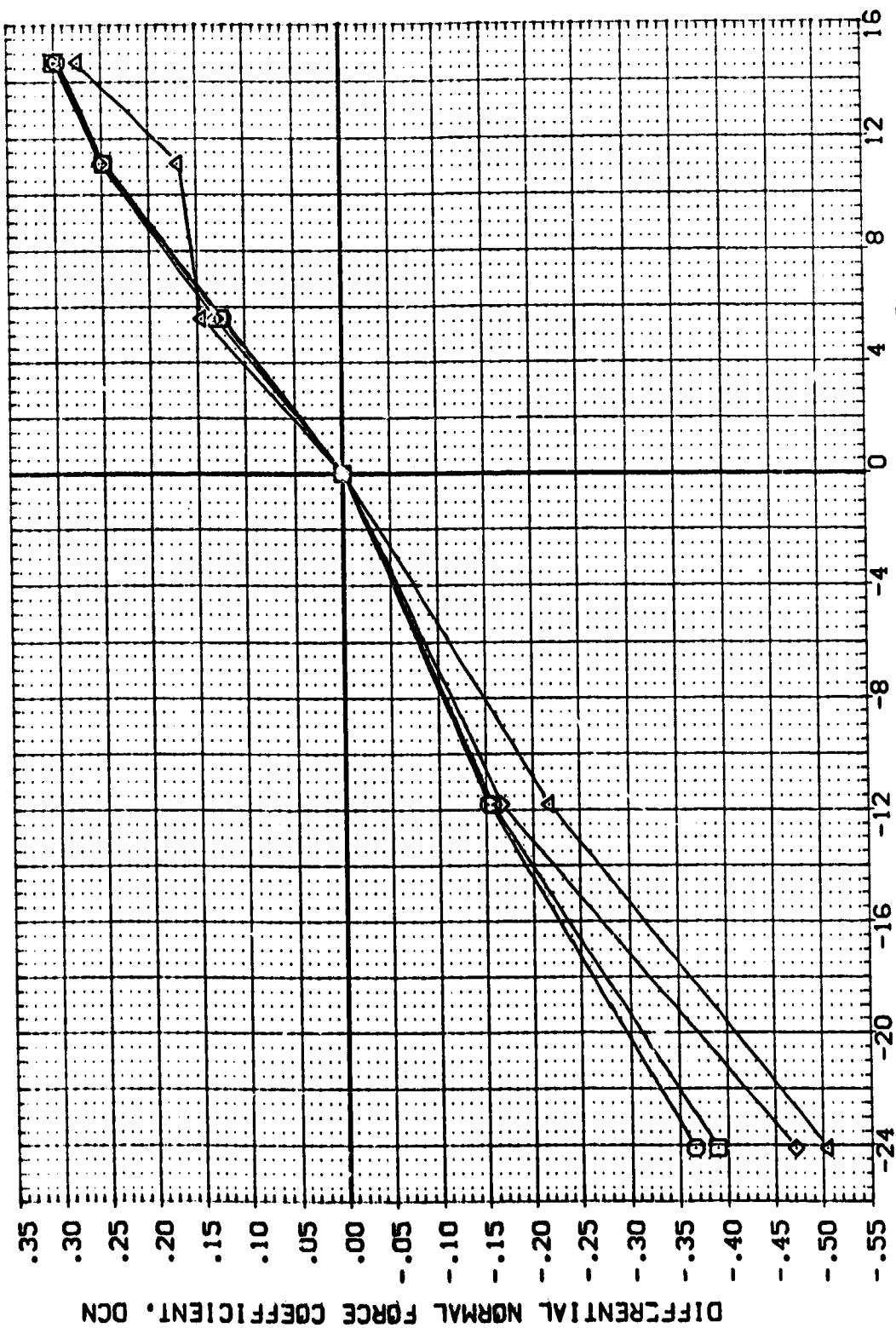


FIGURE 6 139B ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

SYMBOL	ALPHA	PARAMETRIC VALUE'S	DATA SOURCE	DELTON	SREF	REFERENCE INFORMATION
○	.000	RNVL 4.700	DELTON	DELTON	19.3545	SO. IN. INCHES
□	10.000	ATLRON .000	14.700	11.100	14.0502	INCHES
◇	20.000	BOFLAP .000	-14.250	NPP004	12.5770	INCHES
△	30.000	RJOER 24.920	.000	NPP002	6.0000	INCHES
		BETA .000	NPP019	NPP003	SCALE	SCALE
					27.1150	.0150

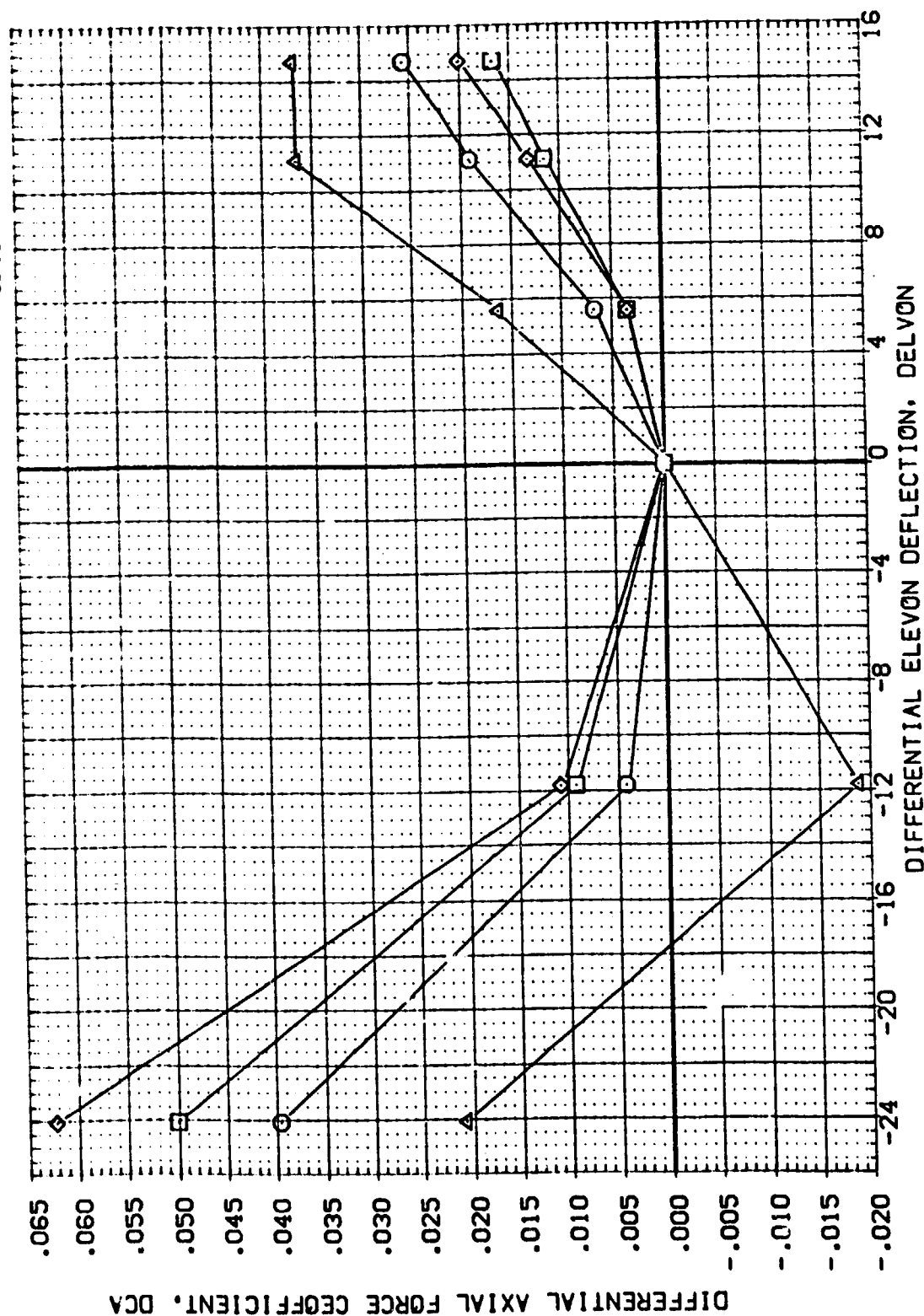
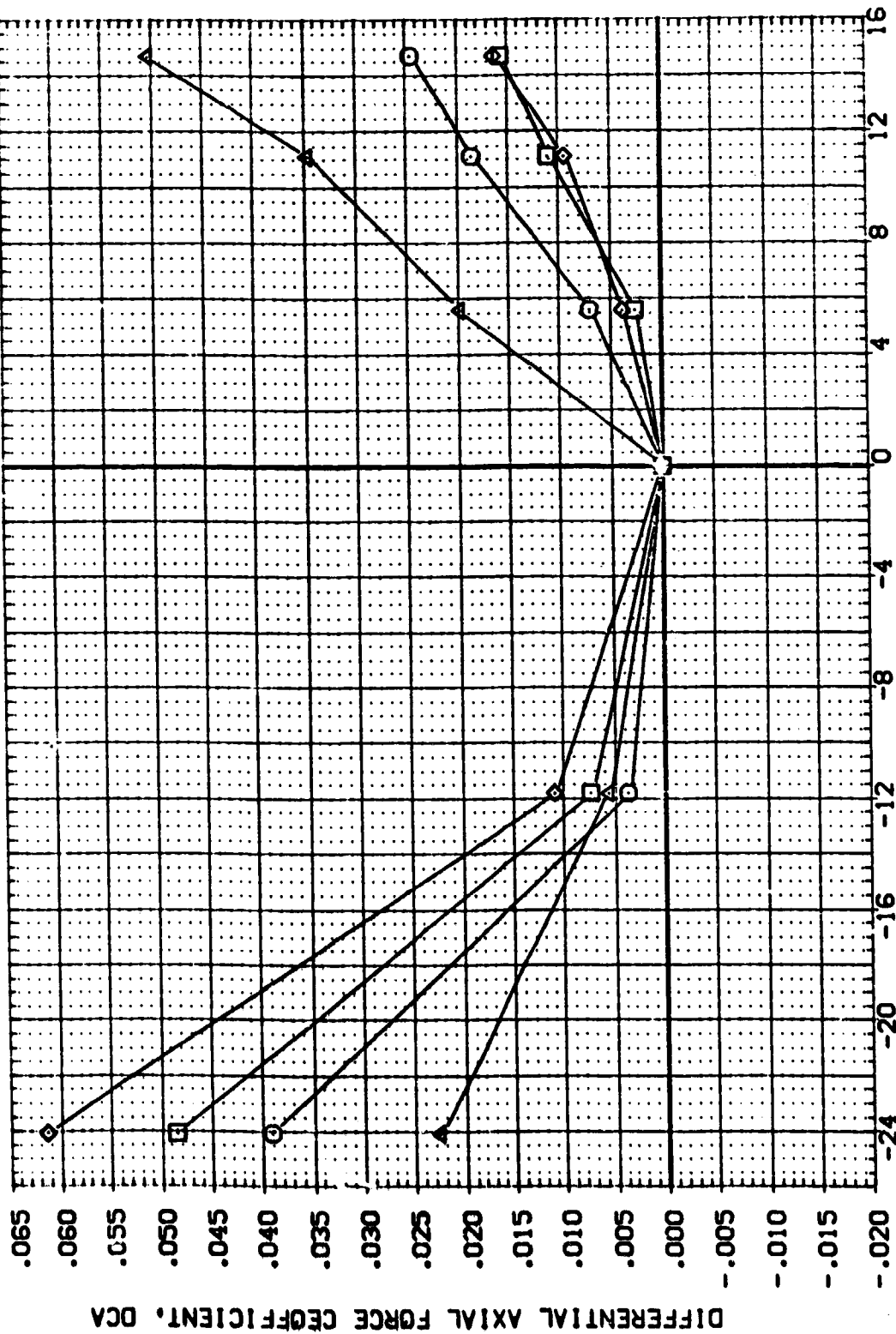


FIGURE 6 1398 ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

GA17.LTPT138.ORB 3.(B19C7F5M4)(W107E23)(V7R5) (NPP018)

PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
SYMBOL	ALPHA	RN/L	ELEVON	DELTON	DELTON	SREF	SO, IN.	INCHES	INCHES
◇	.000	10.000	10.000	14.700	NPP018	REF	87.1560	INCHES	
□	10.000	AILRON	.000	-14.250	NPP018	REF	19.3545	INCHES	
◇	20.000	SPDRK	24.920	.000	NPP017	REF	14.0502	INCHES	
△	30.000	BETA	.000	-11.800	NPP019	REF	12.5770	INCHES	
						XMRP	.0000	INCHES	
						YMRP	6.0000	INCHES	
						SCALE	.0150	SCALE	



DIFFERENTIAL ELEVON DEFLECTION, DELTON
FIGURE 6 139B ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

0A17.LTPT138.ORB 3.(B19C7F5M4)(W107E23)(V7R5) (NPP018)

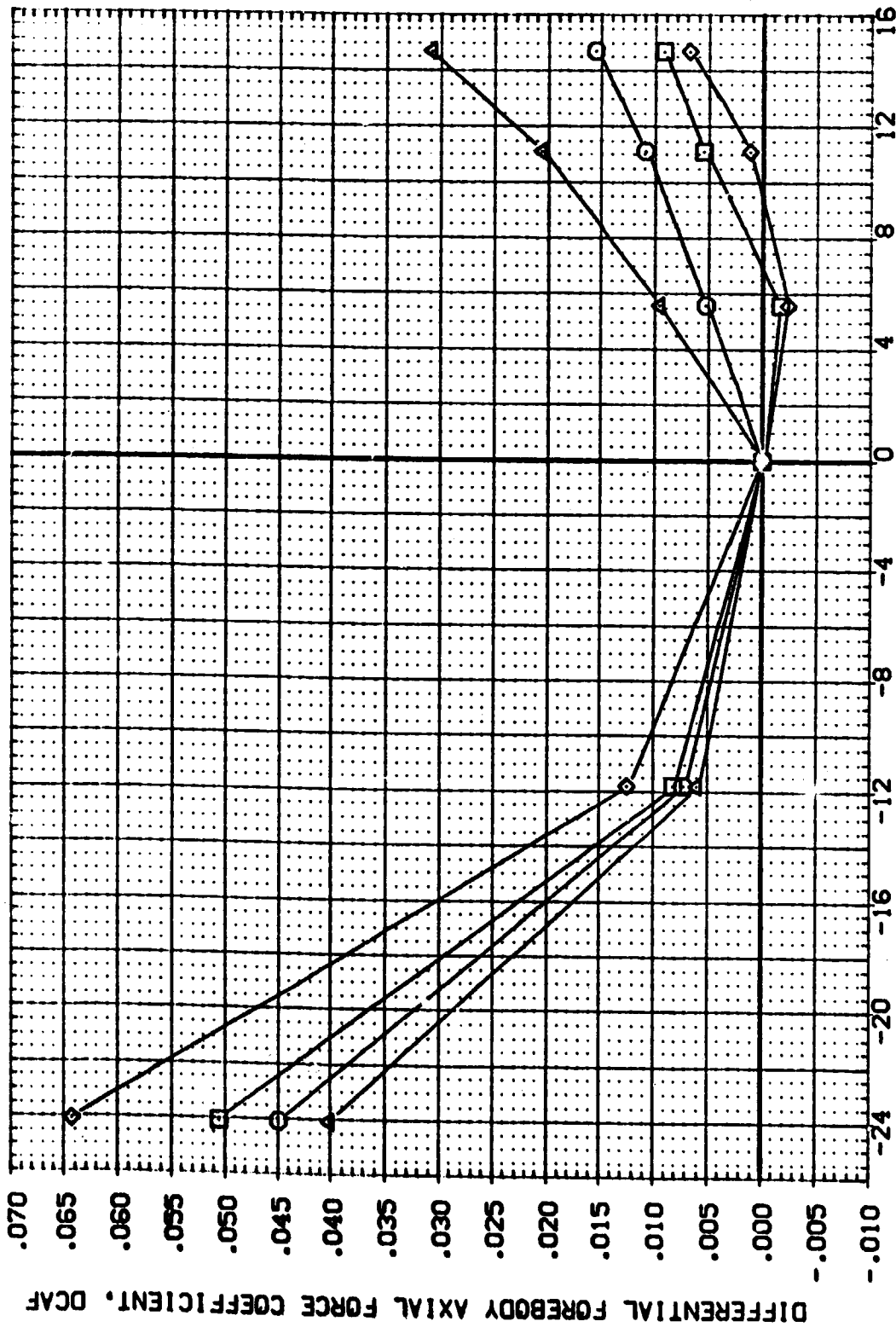
SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	DELTA	DELTA	SCALE	REFERENCE INFORMATION
○	.000	RVL	14.700	DELTA	DELTA		87.1560 SQ. IN.
□	10.000	AILRON	-14.250	NPP018	11.100		19.3545 INCHES
◇	20.000	SPDRK	.000	NPP017	.000		14.0502 INCHES
△	30.000	BETA	.000	NPP019	-24.100		12.5770 INCHES
							6.0000 INCHES
							6.0000 INCHES
							.0150 SCALE



FIGURE 6 139B ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

0A17.LTPT138.ORB 3.(B19C7F5M4)(W107E23)(V7R5) (NPP018)

SYMBOL	A.P.M.	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
□	.000	RVL	DELTON	SREF
□	10.000	AILRON	DELTON	LREF
□	20.000	SPOBRK	DELTON	BREF
□	30.000	BETA	DELTON	XREF
				YREF
				ZREF
				SCALE
				SCALE



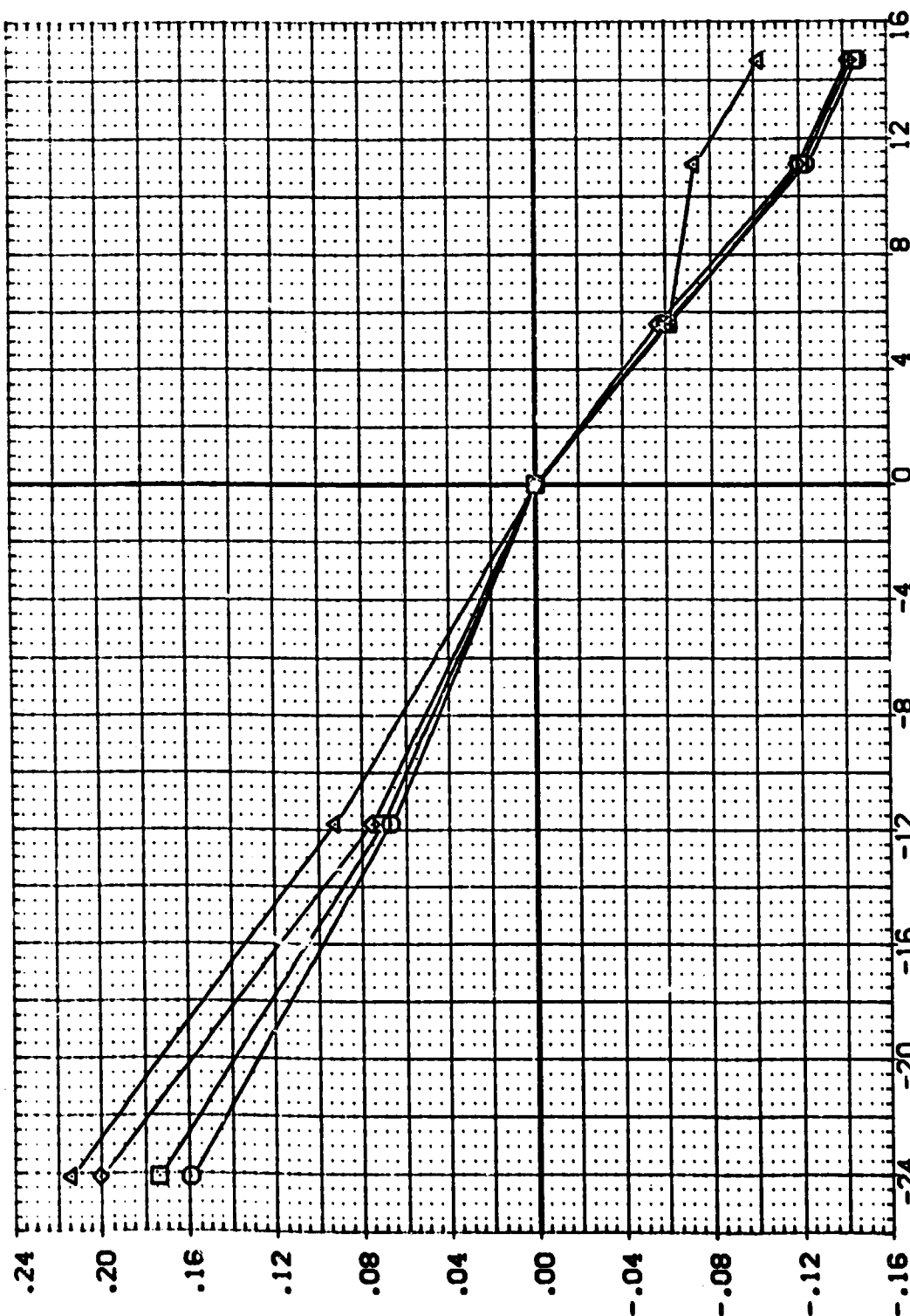
DIFFERENTIAL ELEVON DEFLECTION, DELTON

FIGURE 6 1398 ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

0A17.LTPT138.ORB 3.(B19C7F5M4)(W107E23)(V7R5) (NPP018)

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
□	.000	4.700	DELTON	87.1560
◇	10.000	.000	DELTON	19.3545
△	20.000	24.920	DELTON	14.0502
	30.000	.000	DELTON	12.5770
			DELTON	.0000
			DELTON	6.0000
			DELTON	.0150
			DELTON	SCALE

DIFFERENTIAL PITCHING MOMENT COEFFICIENT (FORWARD C.G.), DCLMFD



DIFFERENTIAL ELEVON DEFLECTION, DELTON

FIGURE 6 139B ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

DA17.LTPT138.ORB 3.(B19C7F5M4)(W107E23)(V7R5) (NPP018)

SYMBOL	ALPHA	RUL	PARAMETRIC VALUES	DATA SOURCE	DATASET	DELTON	SREF	REFERENCE INFORMATION
○	.000		10.000	ELEVON	14.700	NPP018	14.700	87.1560
□	10.000	AILRON	.000	3DFLAP	-14.250	NPP018	14.700	19.3545
◇	20.000	SPDRK	24.220	RUDER	.000	NPP017	14.0502	14.0502
△	30.000	BETA	.000		.000	NPP019	-11.800	12.5770
								INCHES
								INCHES
								INCHES
								INCHES
								SCALE
								SCALE

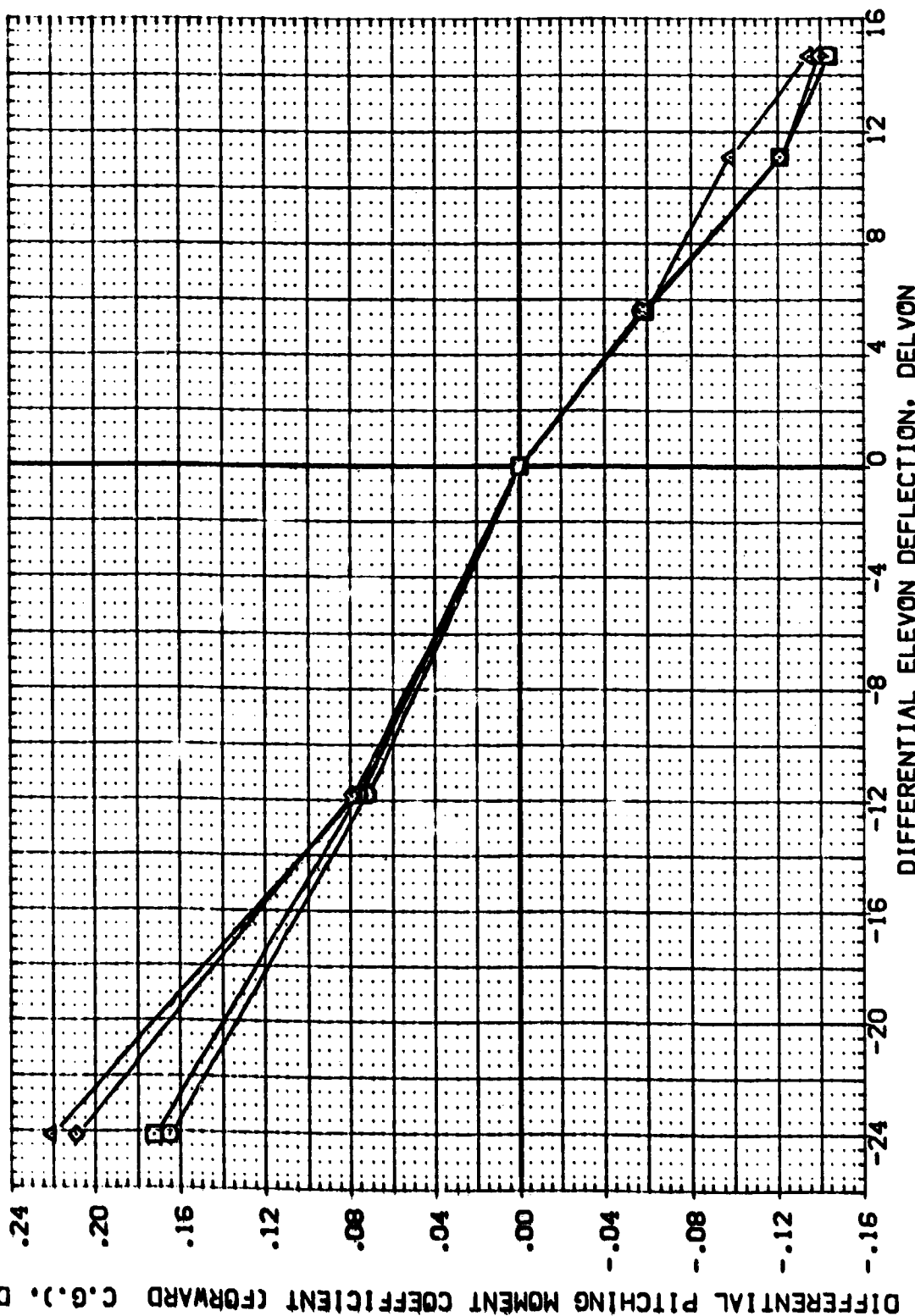


FIGURE 6 1398 ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

SYMBOL	ALPHA	RN/L	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	.000		ELEVON	DELTON	SNF 87.1560 SO. IN. 19.2545
◇	10.000	AILRON	BOFLAP	NP004	LAFF 19.2545 INCHES 14.0502
□	20.000	SPOBRK	RUDDER	NP002	WRRP 12.5770 INCHES .0000
△	30.000	BETA		NP003	WRRP 6.0000 INCHES .0150 SCALE

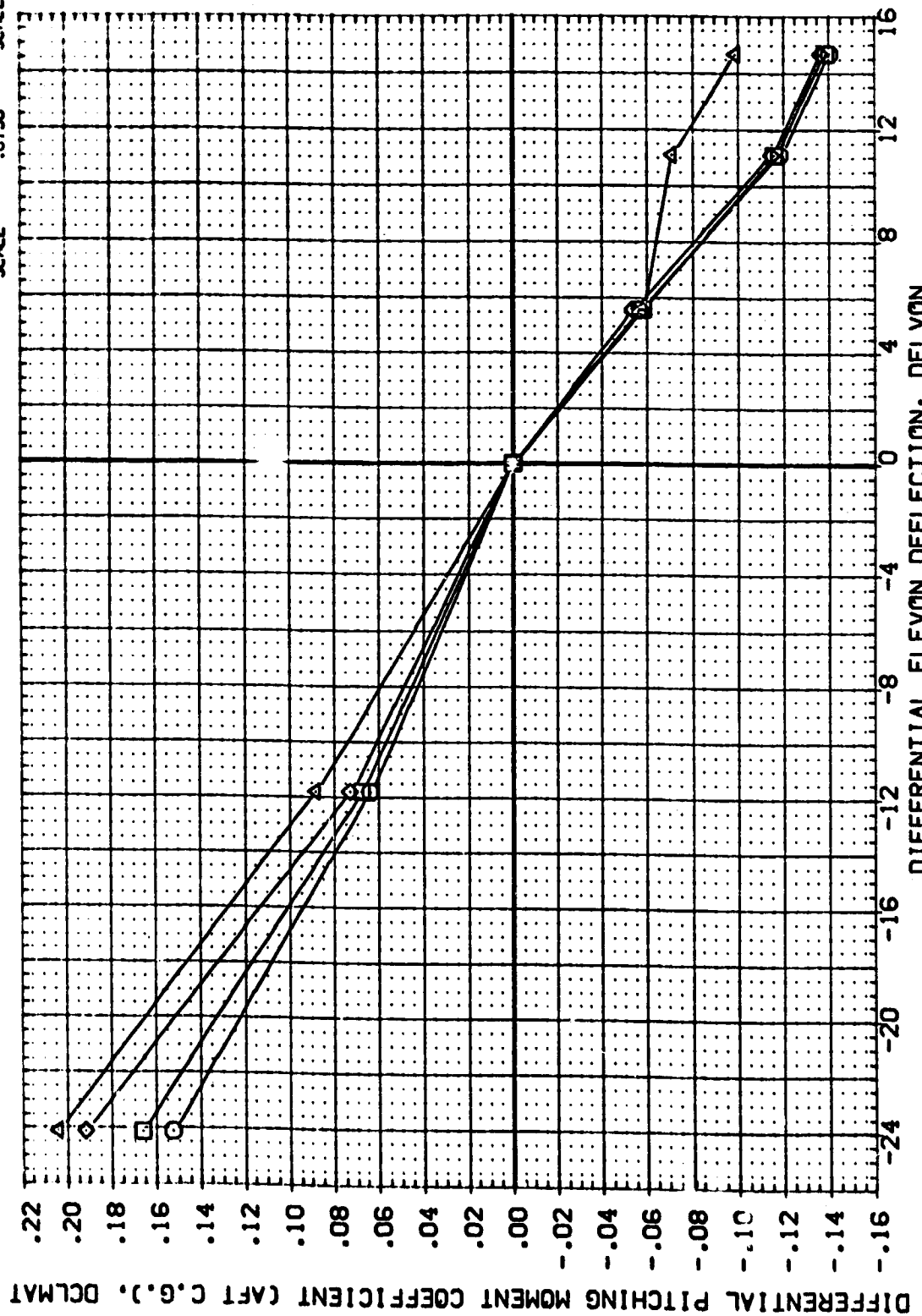
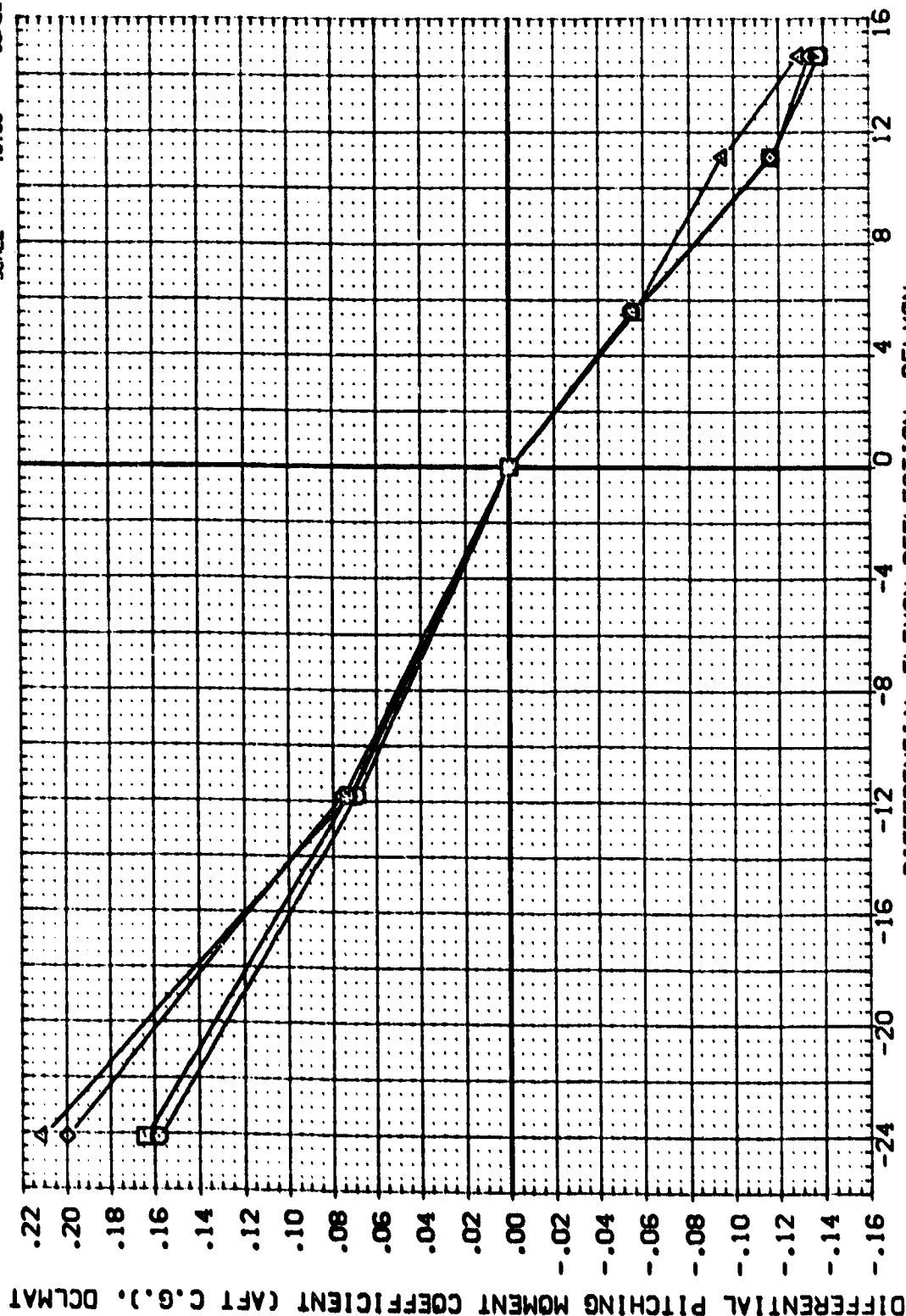


FIGURE 6 139B ORBITER DEFLECTION INCREMENTAL EFFECTS

0A17.LTPT138.ORB 3.(B19C7F5M4)(W107E23)(V7R5) (NPP018)

SYMBOL	ALPHA	RM/L	AILRON	SPDRK	BETA	PARAMETRIC VALUES	ELEVON	BOFLAP	RLODER	DATA SOURCE	DELTON	DATASET	DELTON	SREF	LREF	BREF	XREF	YREF	ZREF	SCALE	REFERENCE INFORMATION	SO, IN.	INCHES	INCHES	INCHES	INCHES	SCALE
○	.000					10.000				14.700	NPP018	NPP004	11.100	87.1560	19.3545	14.0502	12.5770	6.0000	6.0000	.0150							
□	10.000					.000				-14.250	NPP017	NPP002	.000	14.700													
◇	20.000					24.920				.000	NPP015	NPP003	-24.100	11.100													
△	30.000					.000				-11.800																	



DIFFERENTIAL ELEVON DEFLECTION, DELTON
FIGURE 6 139B ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

DATA SET SYMBOL: 017-LIPT138-088 3-(819C7F5M4)(V107E231)(V7K5)
 (APPC02) DATA NOT AVAILABLE
 (APPC08)

ELEVTR BOFLAP SPOSRK RUDDER
 .000 -14.250 24.920 .000
 .000 -14.250 54.920 .000

REFERENCE INFORMATION
 SREF 87.1560 50.1N
 LREF 19.3545 INCHES
 BREF 14.0502 INCHES
 XREF 12.5770 INCHES
 YREF .0000 INCHES
 ZREF 6.0000 INCHES
 SCALE .0150 SCALE

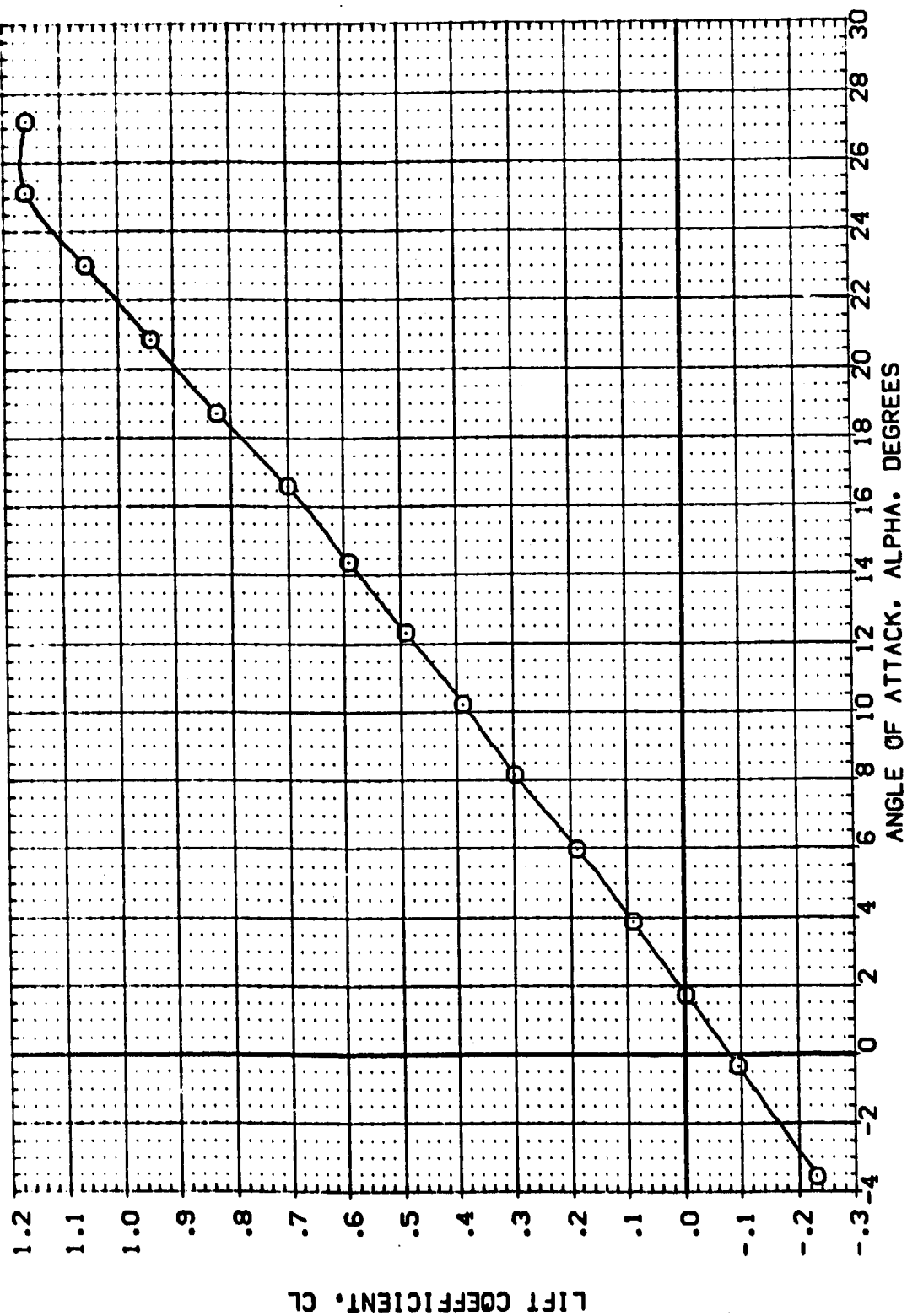


FIGURE 7 139B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 2.50

ELEVTR		BOFLAP		SPOBWK		RLOODR		REFERENCE INFORMATION	
.000	-14.250	24.920	.000	SREF	87.1550	50.1N			
.000	-14.250	54.920	.000	LREF	19.3545	INCHES			
				BREF	14.0502				
				XTRP	12.5770	INCHES			
				YTRP	.0000	INCHES			
				ZTRP	6.0000	INCHES			
				SCALE	.0150	SCALE			

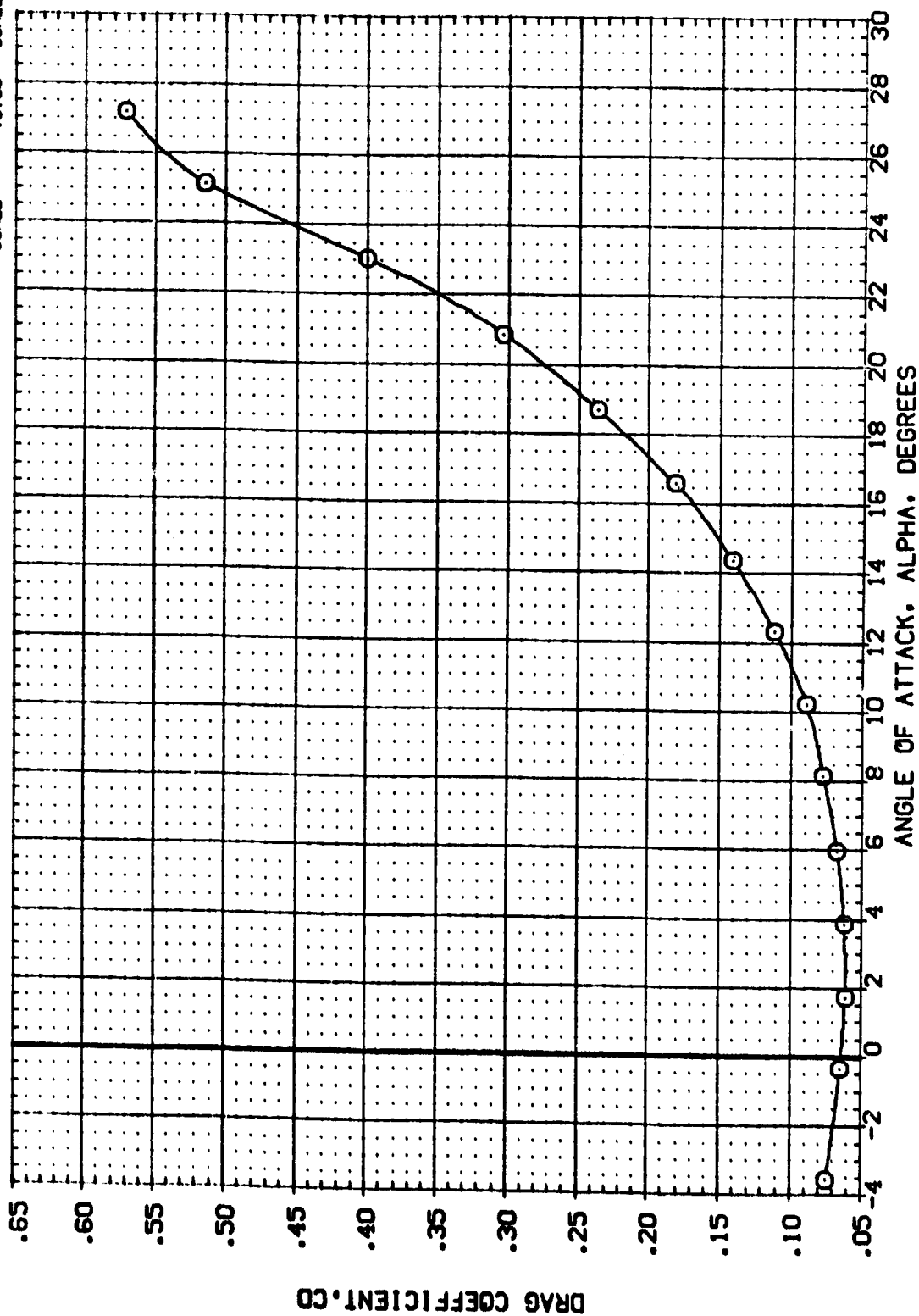


FIGURE 7 139B ORBITER SPEED BRAKE DEFLECTION EFFECTS

$$(A)RN/L = 2.50$$

DATA SET SYMBOL: (APC02) (APC08) DATA NOT AVAILABLE

CONFIGURATION DESCRIPTION: 0A17-LTPT138-ORB 3-(B19C7FSM4)-(V107E23)-(V7R5)

ELEVTR: .000 .000 .000

BOFLAP: -14.250 -14.250

SPOBRK: 24.920 54.920

RUDER: .000 .000

REFERENCE INFORMATION:

	87.1560	19.3545	14.0502	12.5770	.0000	6.0000	.0150
SREF	87.1560	19.3545	14.0502	12.5770	.0000	6.0000	.0150
LREF	19.3545	14.0502	12.5770	.0000	6.0000	.0150	
BREF	14.0502	12.5770	.0000	6.0000	.0150		
XPMP	12.5770	.0000	6.0000	.0150			
YMMP	.0000	6.0000	.0150				
ZMMP	6.0000	.0150					
SCALE	.0150						

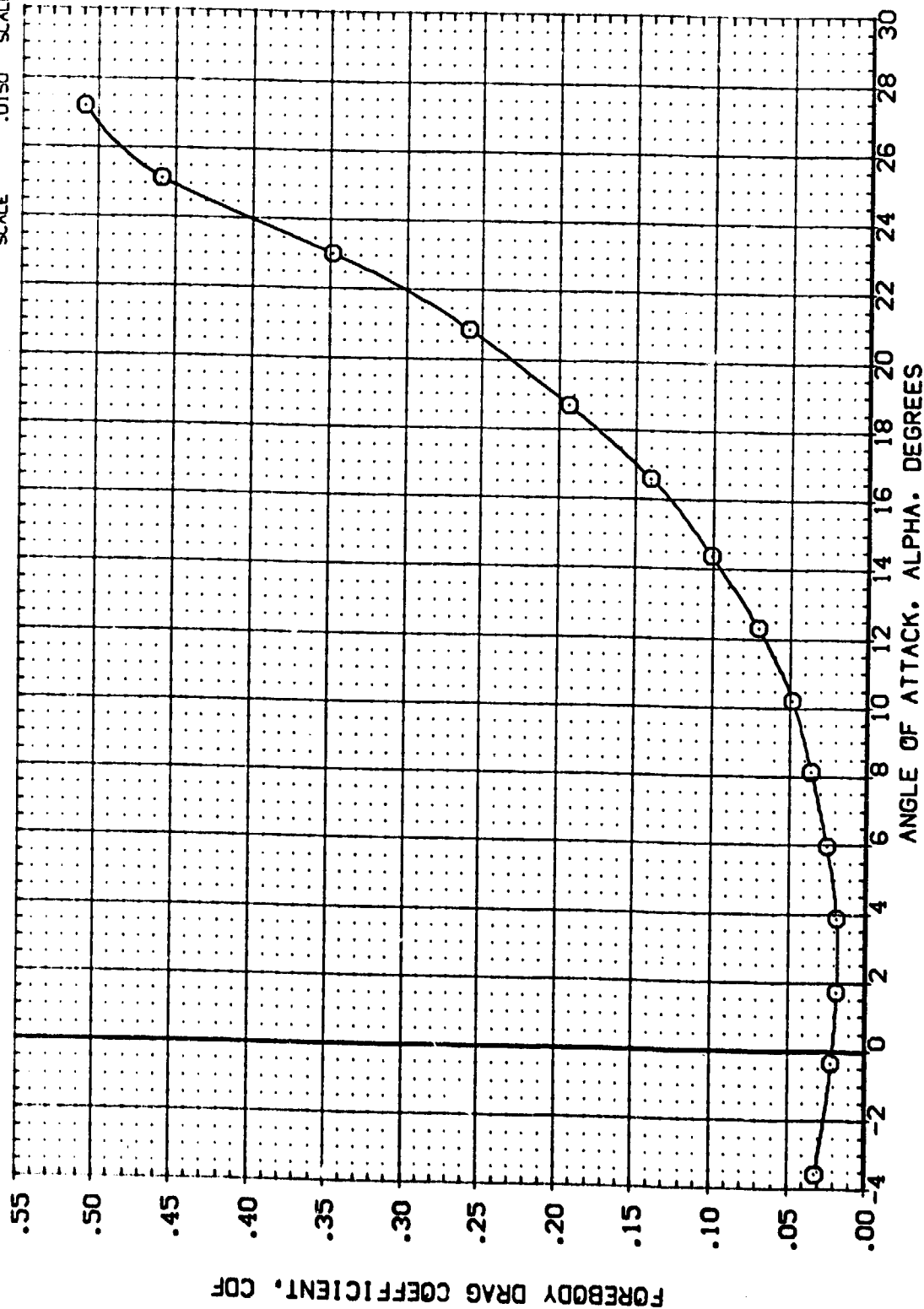


FIGURE 7 139B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 2.50

DATA SET SYMBOL: CA17.LTPT138.ORB 3.(B19C7FSM4)(V107E23)(V7R5)
 (APPOC2)
 (APPOC28): DATA NOT AVAILABLE

CONFIGURATION DESCRIPTION
 ELEVTR BDFLAP SPOBRK RUDDER
 .000 -14.250 24.920 .000
 .000 -14.250 54.920 .000

REFERENCE INFORMATION
 SREF 87.1560 SO.IN.
 LREF 19.3545 INCHES
 BREF 14.0502 INCHES
 XMRP 12.5770 INCHES
 YMRP .0000 INCHES
 ZMRP 6.0000 INCHES
 SCALE .0150

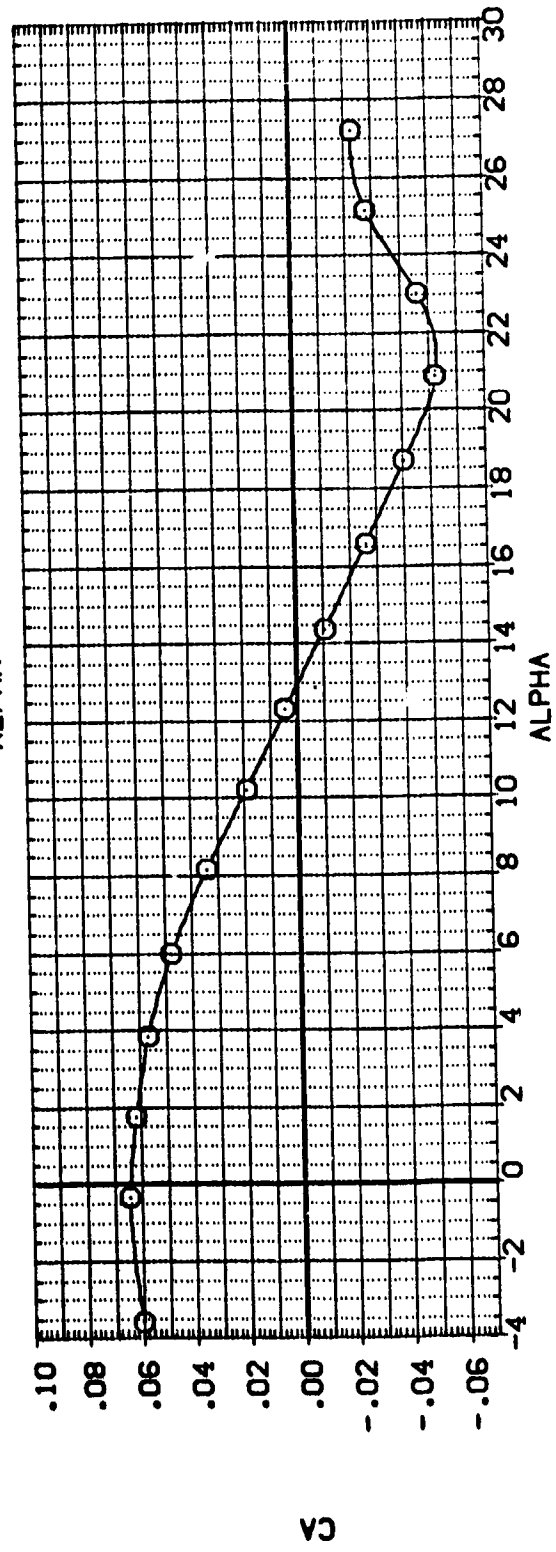
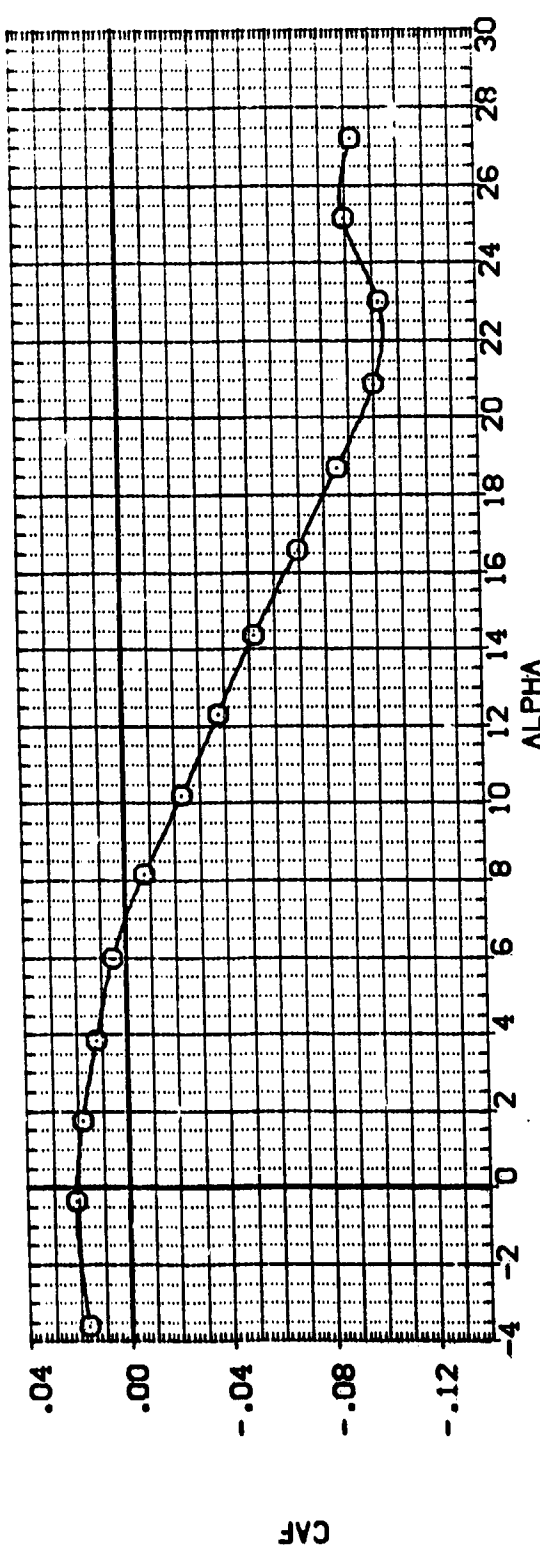


FIGURE 7 139B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(AJRN/L = 2.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPDBRK	RUDDER	REFERENCE INFORMATION
(APPO02)	DA17-ALTPT138-058 3. (B19C7FSM4)(V107E23)(V7R5)	.000	-14.250	24.920	.000	SREF 87.1560 SQ. IN.
(APPO03)	DATA NOT AVAILABLE	.030	-14.250	54.920	.000	LREF 19.3545 INCHES
						BREF 14.0502 INCHES
						XMRP 12.5770 INCHES
						YMRP 6.0000 INCHES
						ZMRP 6.0000 INCHES
						SCALE .0150 SCALE

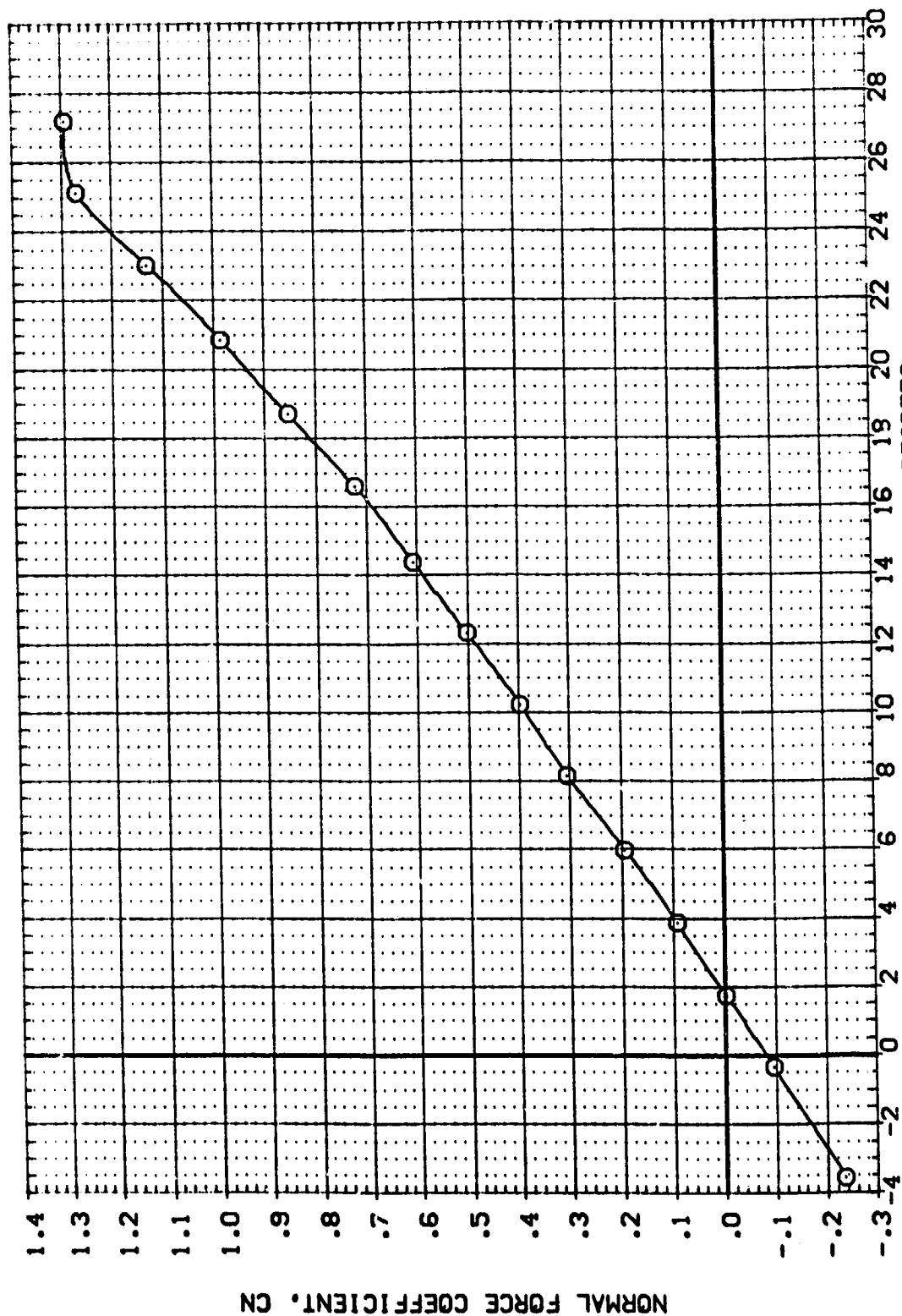


FIGURE 7 139B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(AJRN/L = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPDRBK	RUDDER	REFERENCE INFORMATION
(APPC02)	0A17-LTP1138-008 3-(B19C7F5M4)(V107E23)(V7R5)	.000	-14.250	24.920	.000	SREF 87.1560 50. IN.
(APPC03)	DATA NOT AVAILABLE	.000	-14.250	54.920	.000	LREF 19.3545 INCHES
						BREF 14.0502 INCHES
						XMRP 12.5770 INCHES
						YMRP .0000 INCHES
						ZMRP 6.0000 INCHES
						SCALE .0150 SCALE

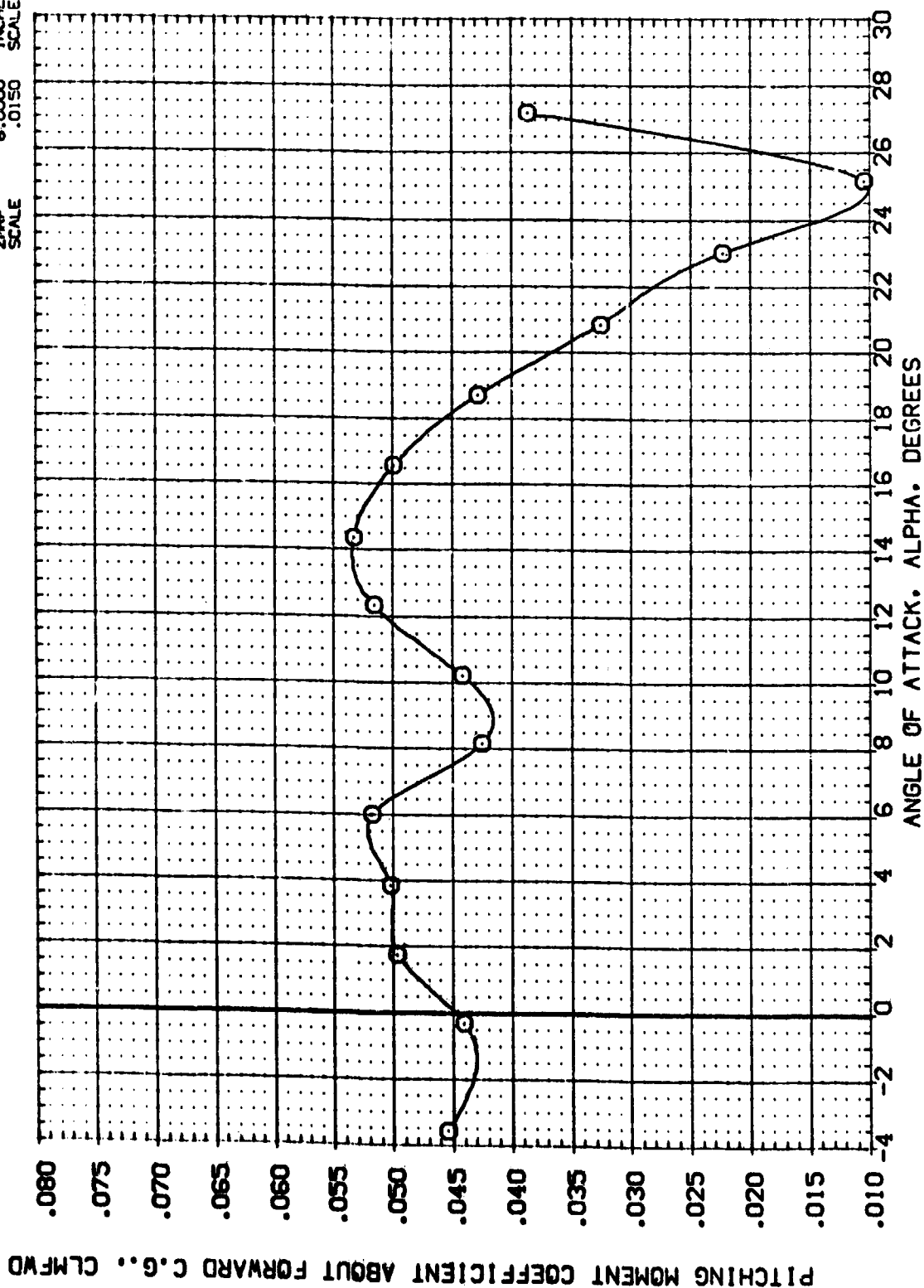


FIGURE 7 1398 ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 2.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION REFERENCE INFORMATION

(APPC02) (APPC03) DATA NOT AVAILABLE (V107E23)(V7R5)

ELEVTR BOFLAP SPOBRK RUDDER XREF YREF ZREF SQ. IN. INCHES

.000 -14.250 24.920 .000 19.3545 14.0502 12.5770 INCHES

.000 -14.250 54.920 .000 6.0000 6.0000 .0150 INCHES

SCALE

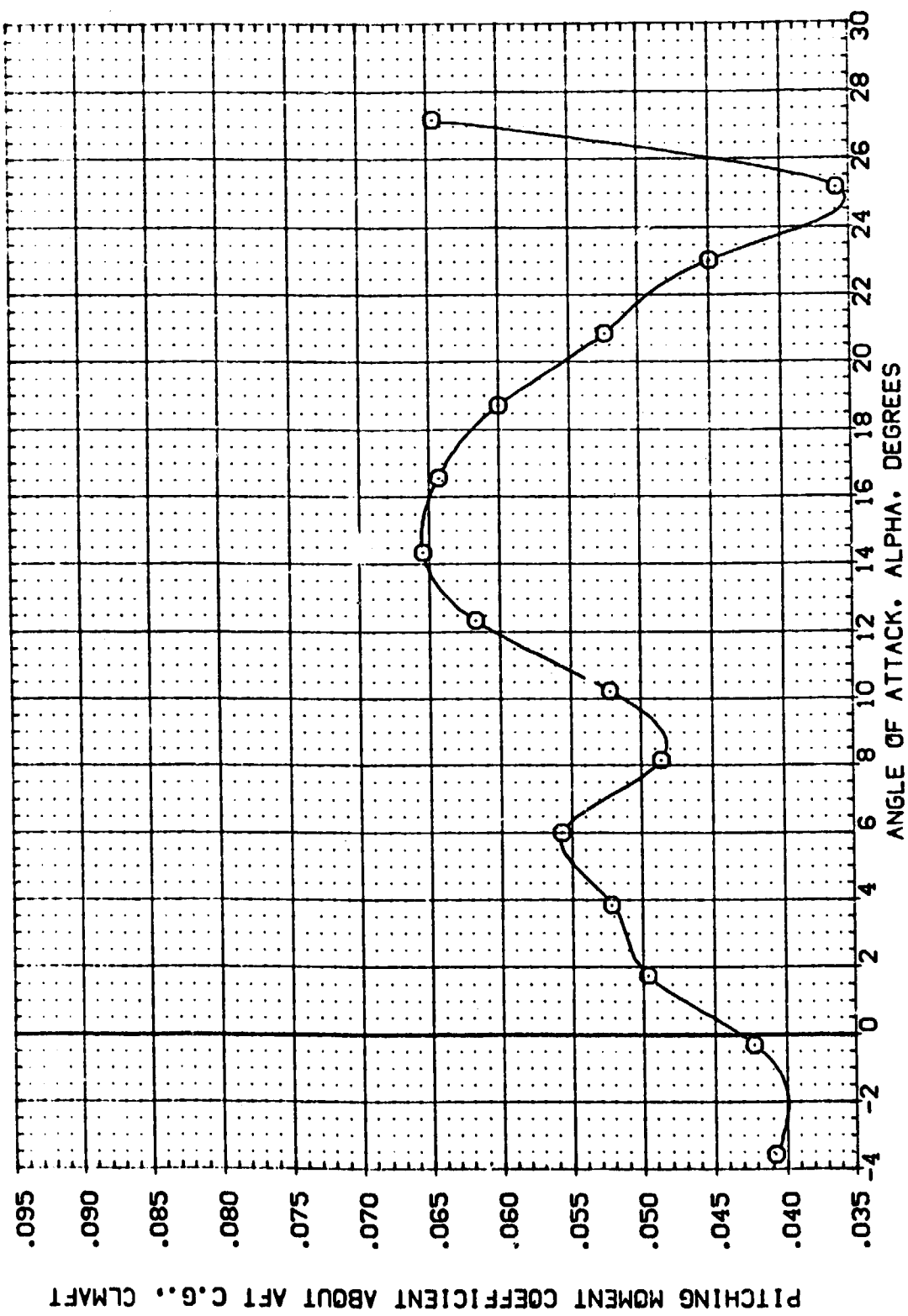


FIGURE 7 139B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 2.50

DATA SET SYMBOL: ☐ (APPC02)
 CONFIGURATION DESCRIPTION: 0A17.L1PT139 JRB 3.(819C7FSM4)(V107E23)(V7R5)
 DATA NOT AVAILABLE

ELEVTR 80FLAP SPOBRK RUDDER
 .000 -14.250 24.920 .000
 .000 -14.250 54.920 .000
 XMRP YMRP ZMRP
 14.0502 12.5770 6.0000
 INCHES INCHES INCHES
 REFERENCE INFORMATION
 SREF 87.1560 50. IN.
 LREF 19.3545 INCHES
 BREF 14.0502 INCHES
 XMRP 12.5770 INCHES
 YMRP 6.0000 INCHES
 ZMRP 6.0000 INCHES
 SCALE .0150 SCALE

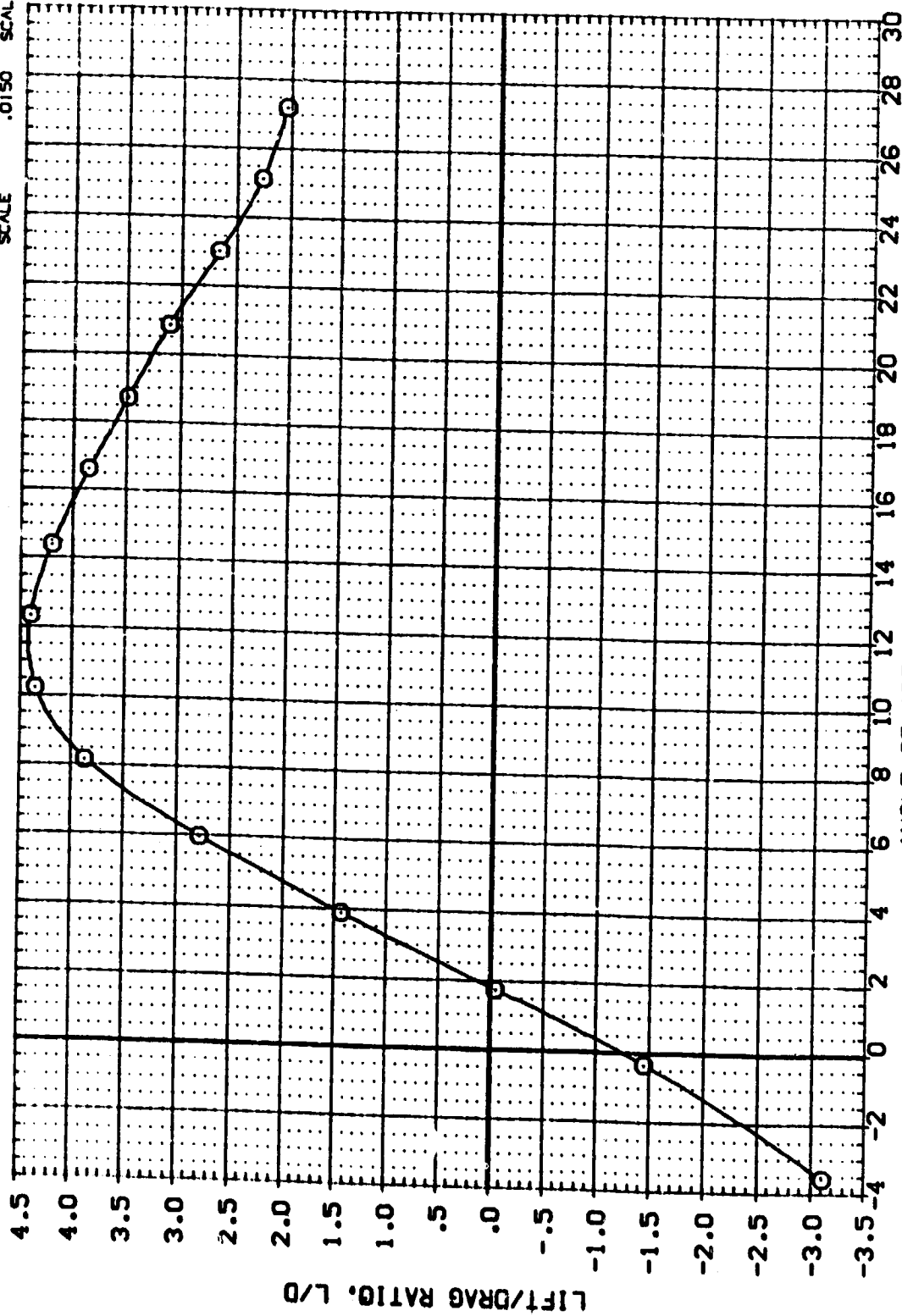


FIGURE 7 139B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 2.50



DATA SET SW'30L CONFIGURATION DESCRIPTION
(APPROX) 8 0117.11PT138.CRB 3.1819CTFSM4((V107E23)) (V7RS)
(APPROX) DATA NOT AVAILABLE

REFERENCE INFORMATION	
SREF	87.1560 SO. IN.
LREF	19.3545 INCHES
BREF	14.0502 INCHES
YMRP	12.5770 INCHES
YMRP	6.0000 INCHES
ZMRP	6.0000 INCHES
SCALE	.0150 SCALE

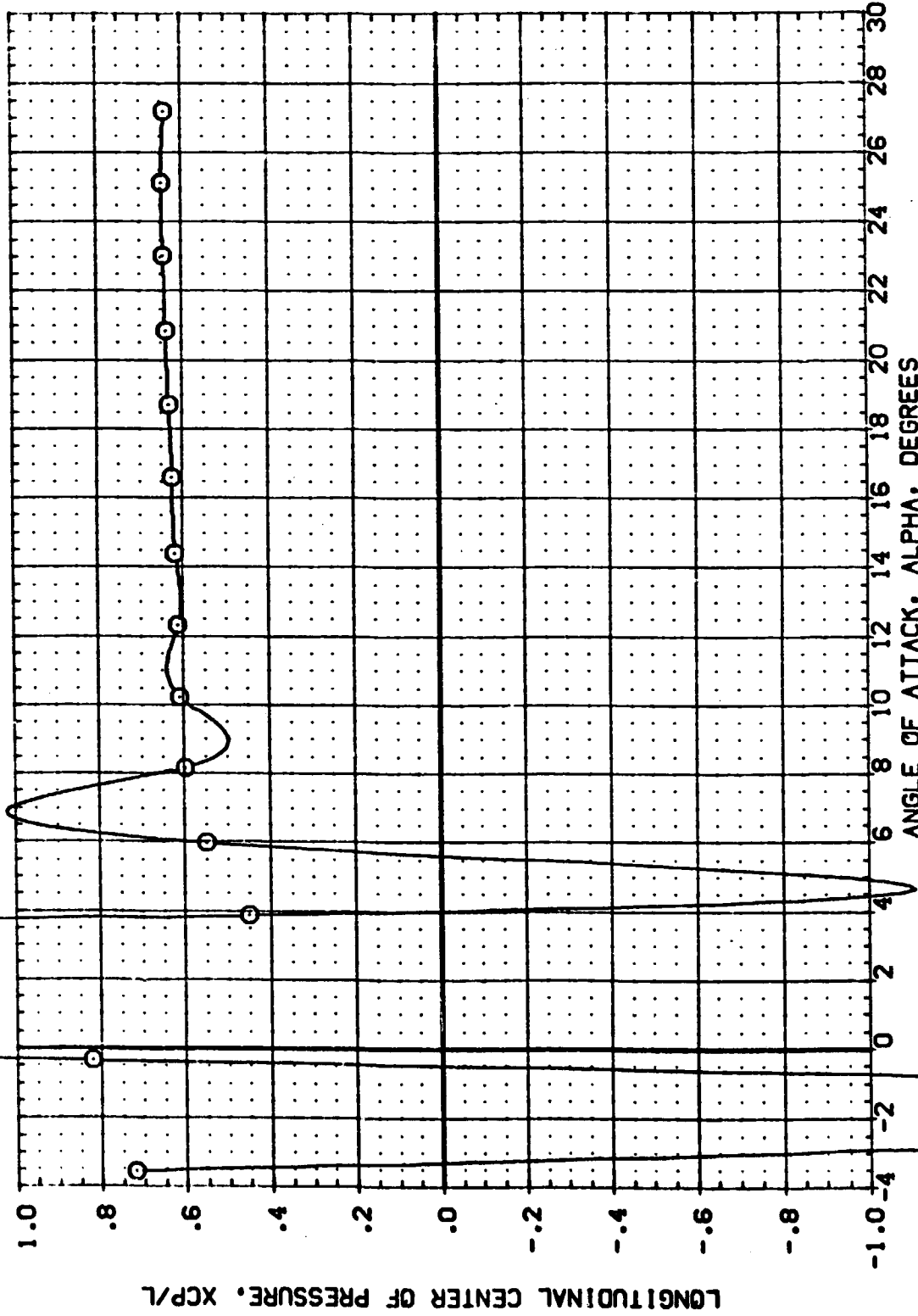


FIGURE 7 139B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 2.50

DATA SET SYMBOL: 0A17-LTPT139B-008 3. (815C77594) (V107E23) (V7R5)
 (APPO02) DATA NOT AVAILABLE
 (APPO08)

ELEVTR BOFLAP SPOBRK RUDDER
 .000 -14.250 24.920 .000
 .000 -14.250 54.920

REFERENCE INFORMATION
 SREF 87.1580 50. IN.
 LREF 19.3545 INCHES
 BREF 14.0502 INCHES
 XREF 12.5770 INCHES
 YREF .0000 INCHES
 ZREF 6.0000 INCHES
 SCALE .0150 SCALE

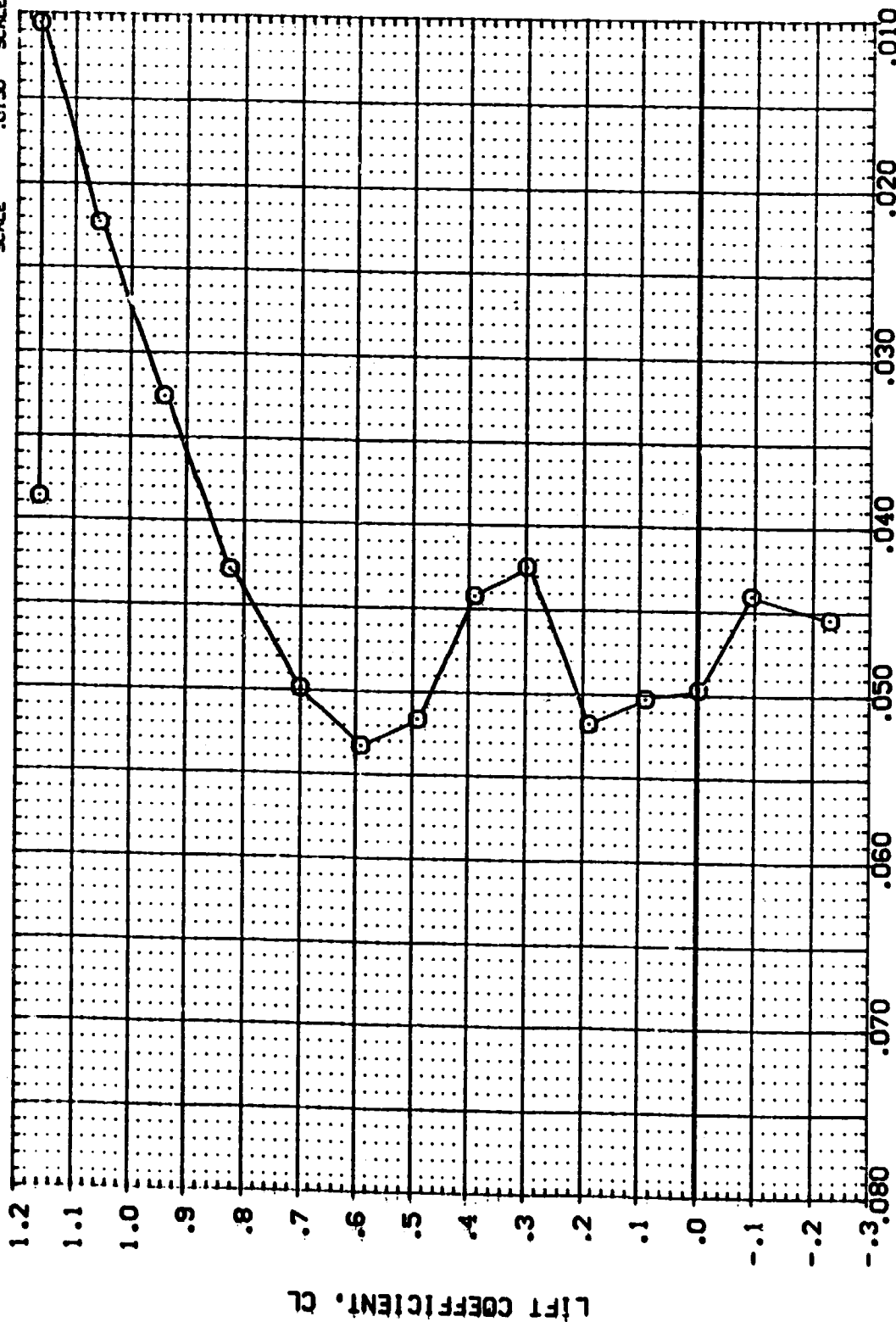


FIGURE 7 139B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 2.50

ELEVTR		FOFLAP	SPOBRK	FLDGR	REFERENCE INFORMATION	
.000	-14.250	24.920	.000	SREF	87.1560	50. IN.
.000	-14.250	54.920	.000	LREF	19.3545	INCHES
				SREF	14.0502	INCHES
				XTRP	12.5770	INCHES
				YTRP	.0000	INCHES
				ZTRP	6.0000	INCHES
				SCALE	.0150	SCALE

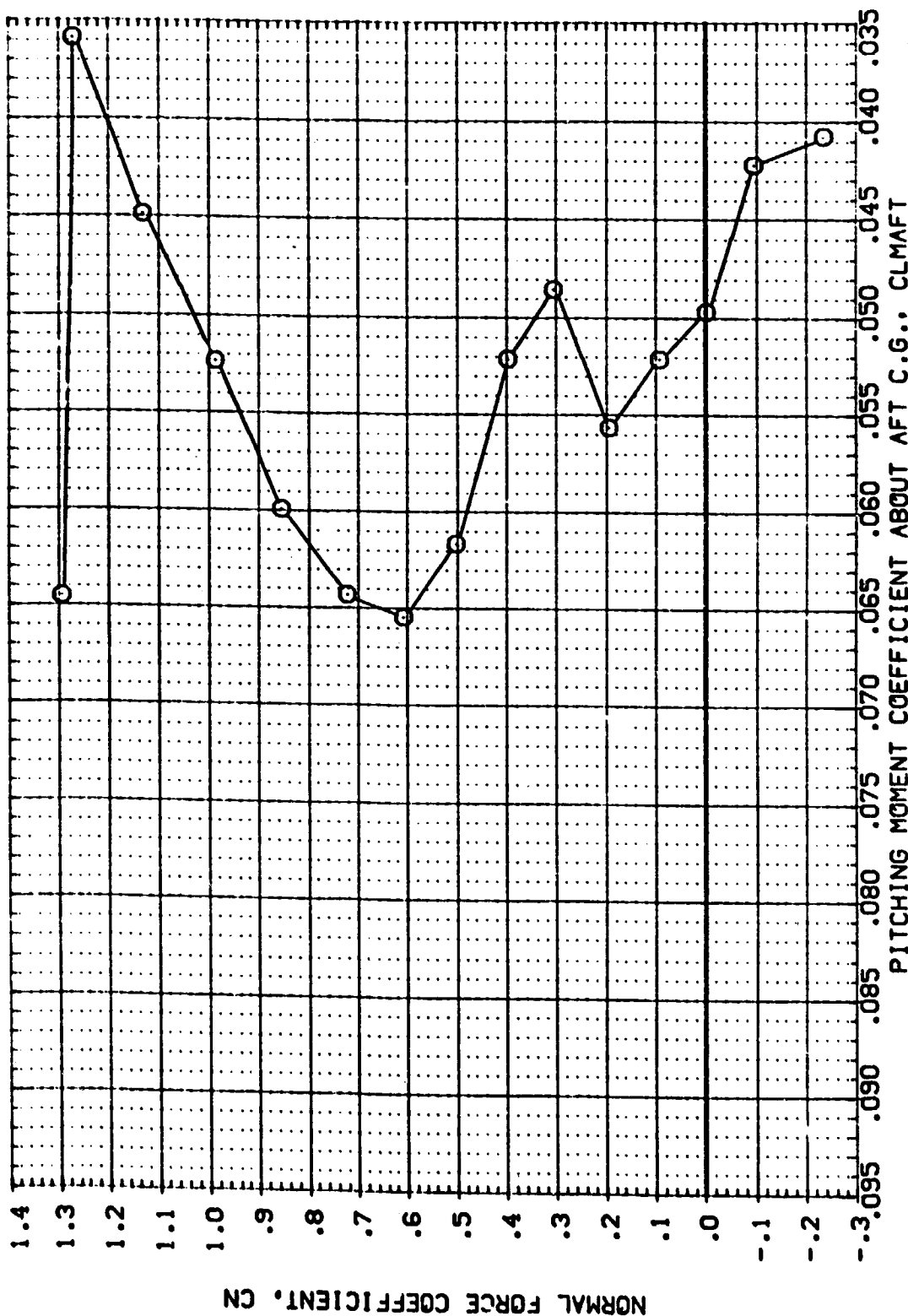


FIGURE 7 139B ORBITER SPEED BRAKE DEFLECTION EFFECTS

$$[A]_{RN/L} = 2.50$$

DATA SET SYMBOL: Q17.LTPT138.CRB 3.(8)SC7FSM4.(V107E23)(V7R5)
 (APPC2) DATA NOT AVAILABLE
 (APPC8)

CONFIGURATION DESCRIPTION

ELEVTR 80FLAP SPOBRK RUDDER
 .000 -14.250 24.920 .000
 .000 -14.250 54.920 .000

REFERENCE INFORMATION
 SREF 87.1560 SD.IN.
 LREF 19.3545 INCHES
 BREF 14.5302 INCHES
 XPRP 12.5770 INCHES
 YPRP 6.0000 INCHES
 ZPRP 6.0000 INCHES
 SCALE .0150

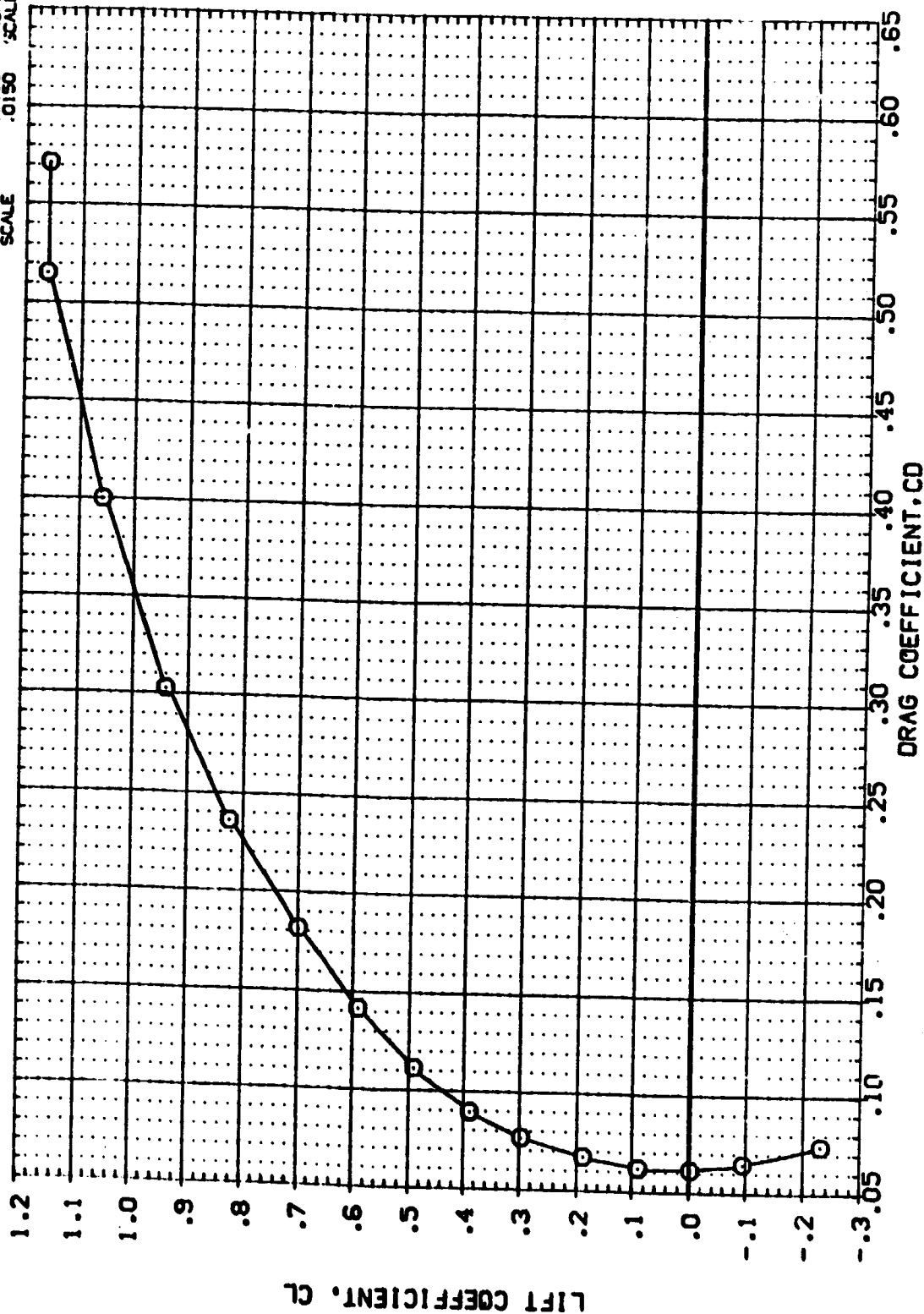


FIGURE 7 139B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 2.50



DATA SET SYMBOL: (RPP002) ☐ DATA NOT AVAILABLE

CONFIGURATION DESCRIPTION: 0A17ALPT138:0RB 3. (B1SC7FSM4)(V107E23)(V7MS)

ELEVTR: .000
BOFLAP: -14.250
SPDRBK: .000
RUDDER: .000

REFERENCE INFORMATION:

	87.1560	50. IN.
SREF	19.3545	INCHES
LBREF	14.0502	INCHES
XBREF	12.5770	INCHES
YBREF	.0000	INCHES
ZBREF	6.0000	INCHES
SCALE	.0150	SCALE

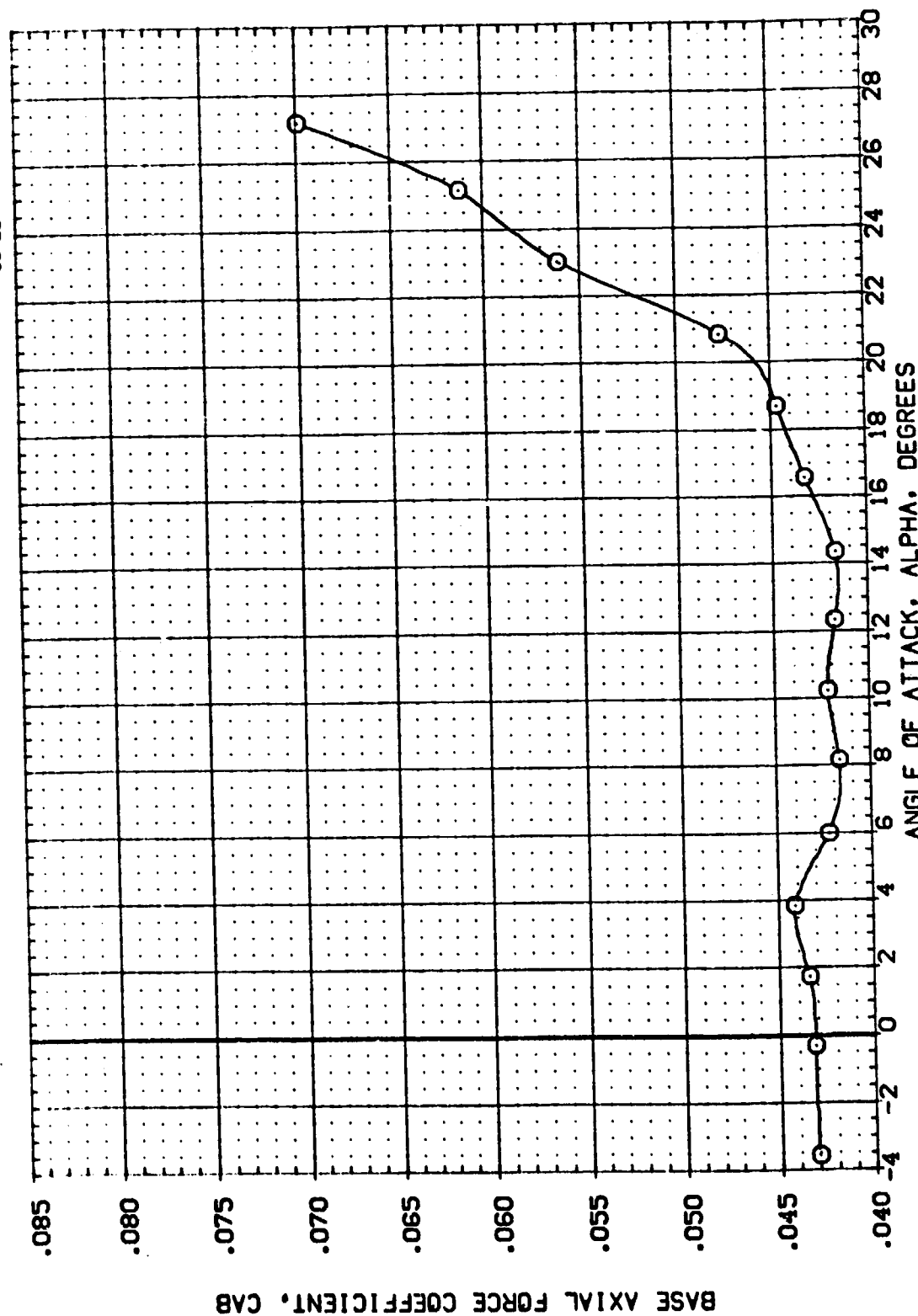


FIGURE 7 1398 ORBITER SPEED BRAKE DEFLECTION EFFECTS

(AJRN/L = 2.50)

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVTR		BOFLAP		SPDRBK		RUDDER		REFERENCE INFORMATION	
(APPO02)	□	0A17-LTPT138-088	3. (81SC7F5M4)(V107E23)(V7R5)	.000	-14.250	.000	-14.250	24.920	.000	SREF	87.1560	50. IN.	
(APPO08)	□	0A17-LTPT138-088	3. (81SC7F5M4)(V107E23)(V7R5)	.000	-14.250	.000	-14.250	54.920	.000	LREF	19.3545	INCHES	
										BREF	14.0502	INCHES	
										XPRP	12.5770	INCHES	
										YPRP	.0000	INCHES	
										ZPRP	6.0000	INCHES	
										SCALE	.0150	SCALE	

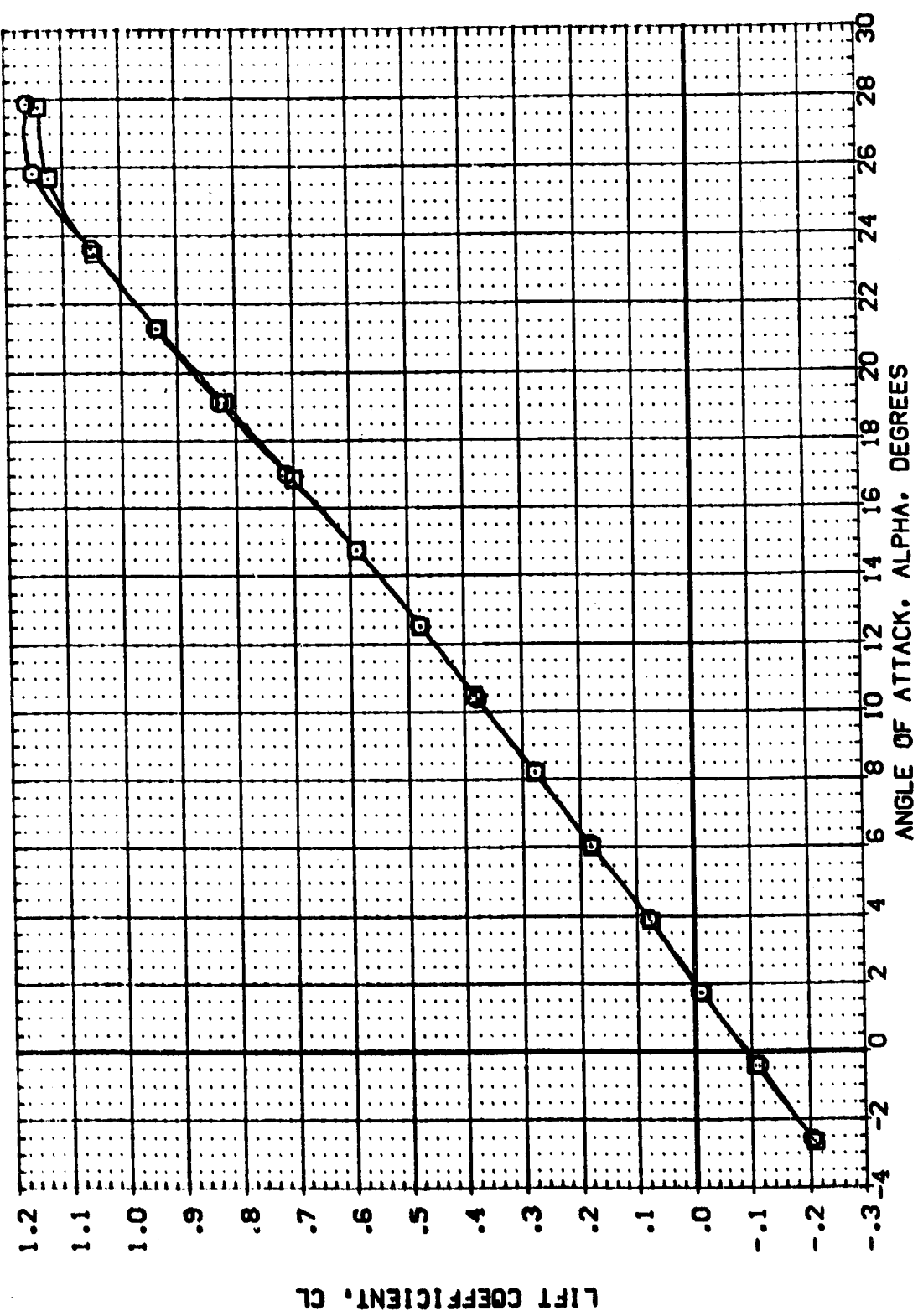


FIGURE 7 1398 ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 4.70



DATA SET SYMBOL		CONFIGURATION DESCRIPTION		REFERENCE INFORMATION	
(APPO02)	□	DA17.LTPT138.0RB 3.(B19C7F5M4)(V107E23)(V7R5)	ELEVTR	BOFLAP	SPUGBRK
(APPO03)	□	DA17.LTPT138.0RB 3.(B19C7F5M4)(V107E23)(V7R5)	.000	-14.250	24.920
			.000	-14.250	54.920
			RUDER		
			.000		
			.000		
			SREF	87.1560	50.1 IN.
			LREF	19.3545	1 IN.-ES
			BREF	14.0502	1 IN.-ES
			XMRP	12.5770	1 IN.-ES
			YMRP	.0000	1 IN.-ES
			ZMRP	6.0000	1 IN.-ES
			SCALE	.0150	SCALE

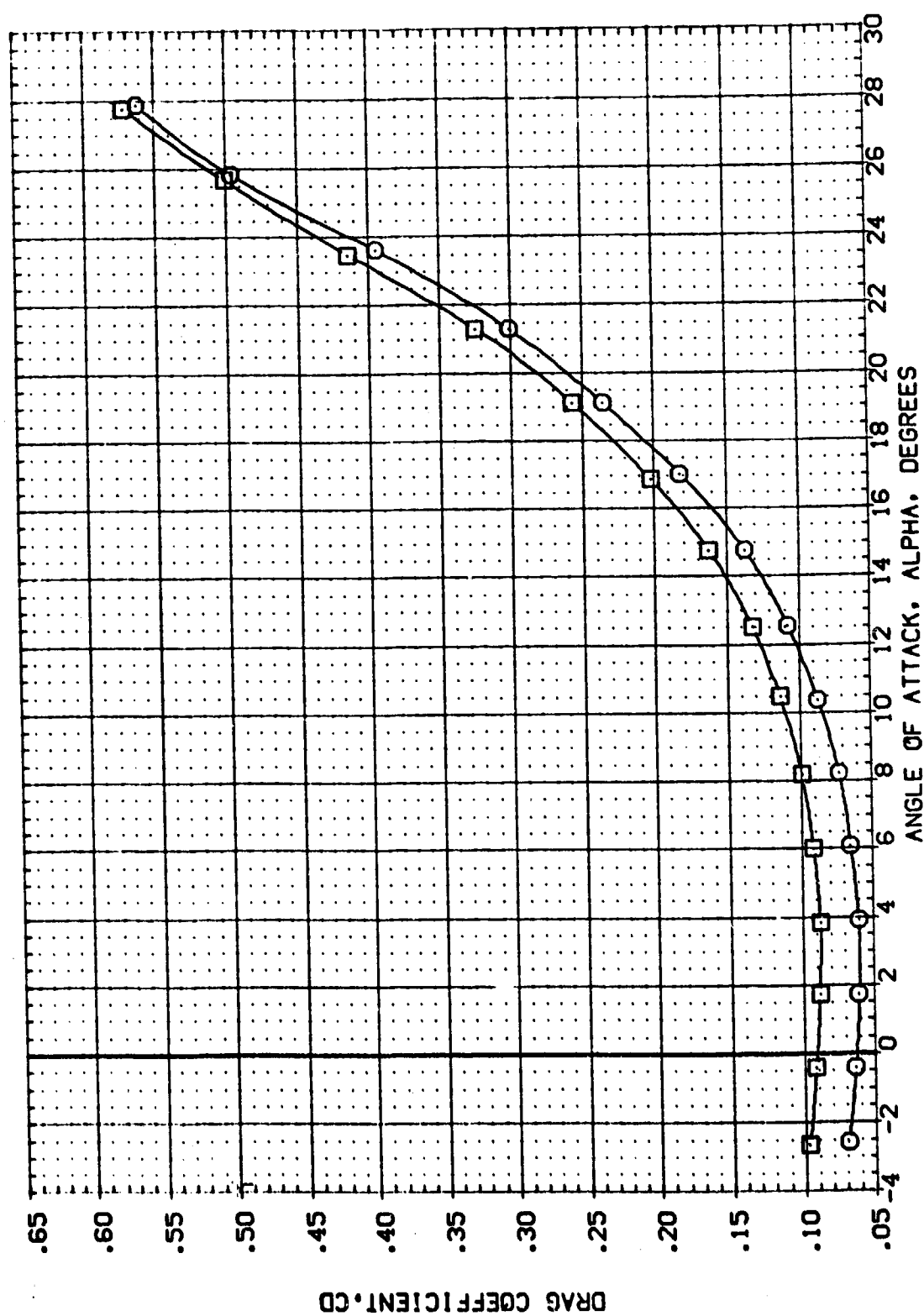


FIGURE 7 1398 ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(APPC2) 0A17.LTPT138.008 3.(B1SC7F34)(V107E23)(VRS)
 (APPC8) 0A17.LTPT138.008 3.(B1SC7F34)(V107E23)(VRS)

ELEVTR BDFLAP SPOBRK RUDDER
 .000 -14.250 24.920 .000
 .000 -14.250 54.920 .000

REFERENCE INFORMATION
 SREF 87.1560 SQ.IN.
 LREF 19.3545 INCHES
 BREF 14.0502 INCHES
 XVRP 12.5770 INCHES
 YVRP .0000 INCHES
 ZVRP 6.0000 INCHES
 SCALE .0150 SCALE

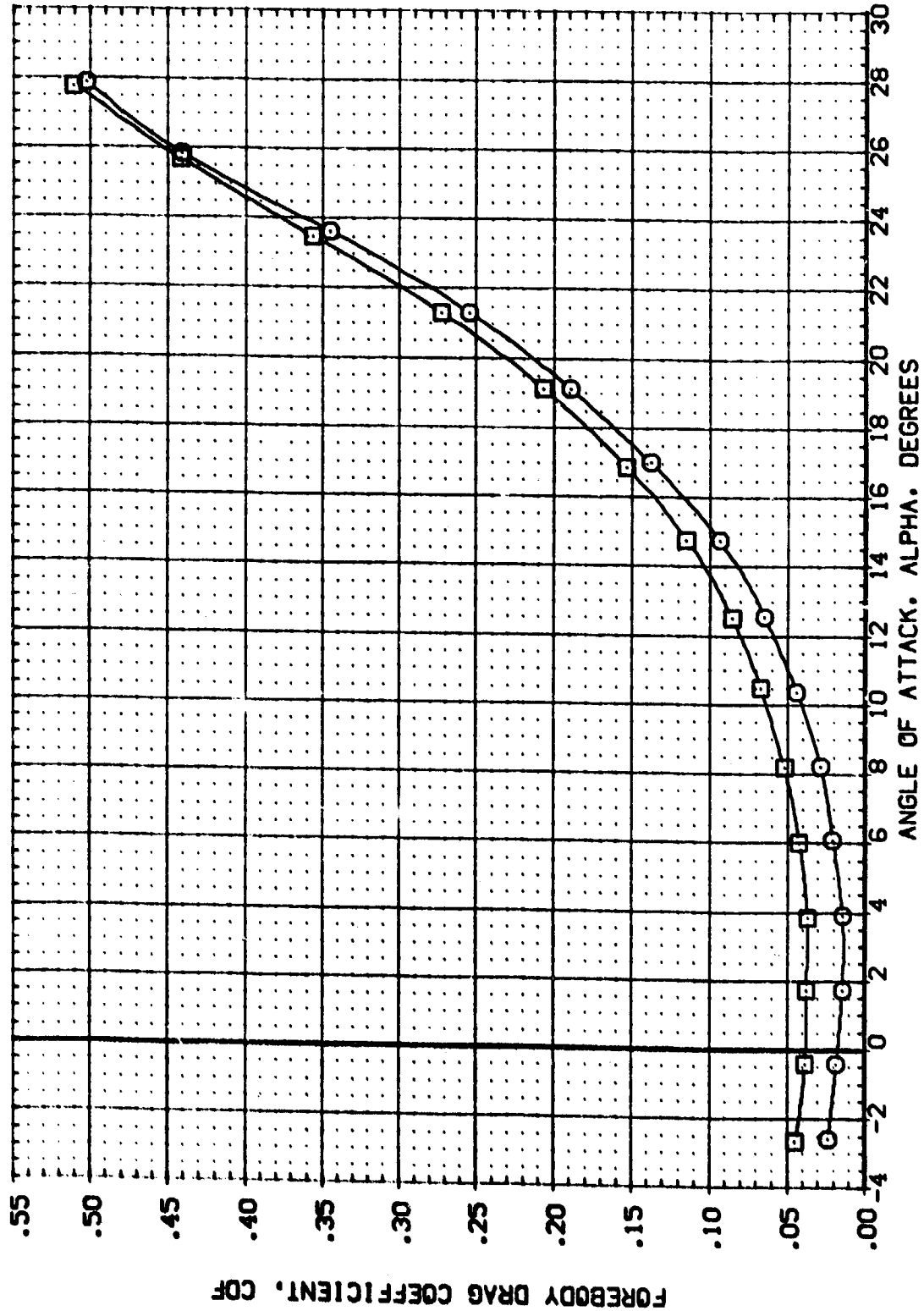


FIGURE 7 139B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 4.70



DATA SET SYMBOL: [APPO02] [APPO08] CONFIGURATION DESCRIPTION: 0A17.LTPT138.0R8 3.(B19C7F5H4)(V107E23)(V7R5) 0A17.LTPT138.0R8 3.(B19C7F5H4)(V107E23)(V7R5)

ELEVTR BDFLAP SPOBRK RUDDER
 .000 -14.250 24.920 .000
 .000 -14.250 54.920 .000

REFERENCE INFORMATION
 SREF 87.1560 50. IN.
 LREF 19.3545 INCHES
 XMRP 14.0502 INCHES
 YMRP 12.5770 INCHES
 ZMRP 6.0000 INCHES
 SCALE .0150

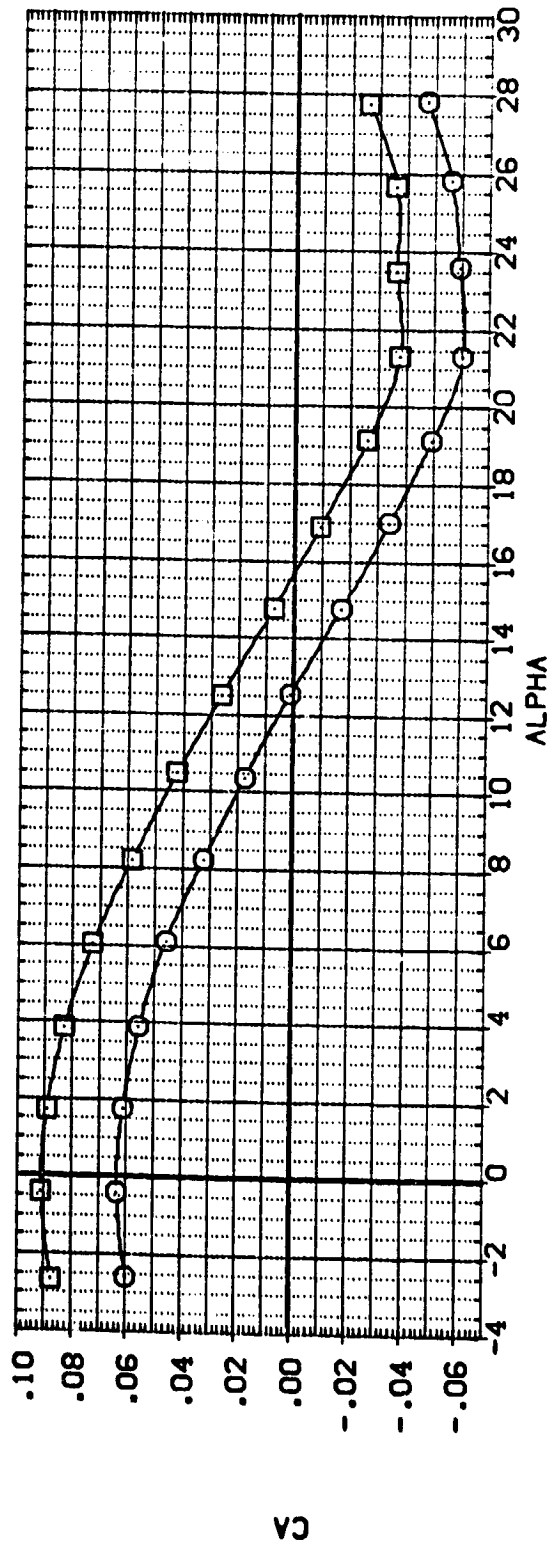
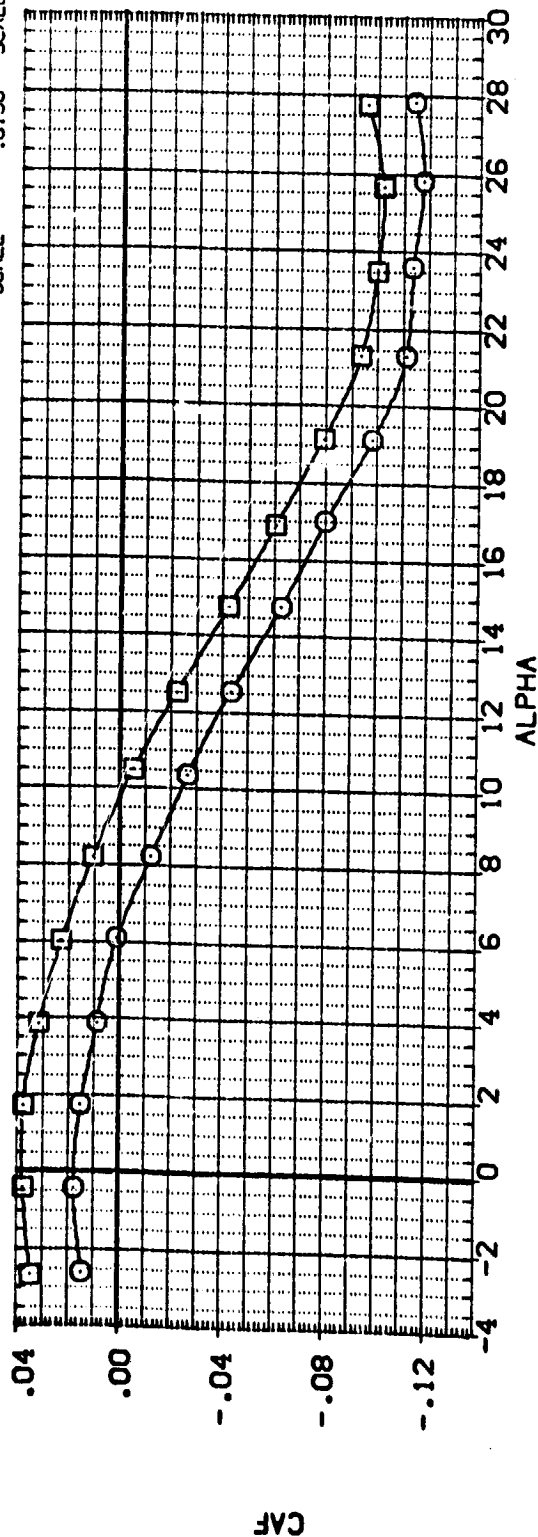


FIGURE 7 139B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BDFLAP	SPDRBK	RUDDER	REFERENCE INFORMATION
(APPO02)	DA17.LTPT138.058 3.(B19C7F5M4)(V107E23)(V7R5)	.000	-14.250	24.920	.000	SREF 87.1560 SQ. IN.
(APPO08)	DA17.LTPT138.058 3.(B19C7F5M4)(V107E23)(V7R5)	.000	-14.250	54.920	.000	LREF 19.3545 INCHES
						BREF 14.0502 INCHES
						XMRP 12.5770 INCHES
						YMRP .0000 INCHES
						ZMRP 6.0000 INCHES
						SCALE .0150 SCALE

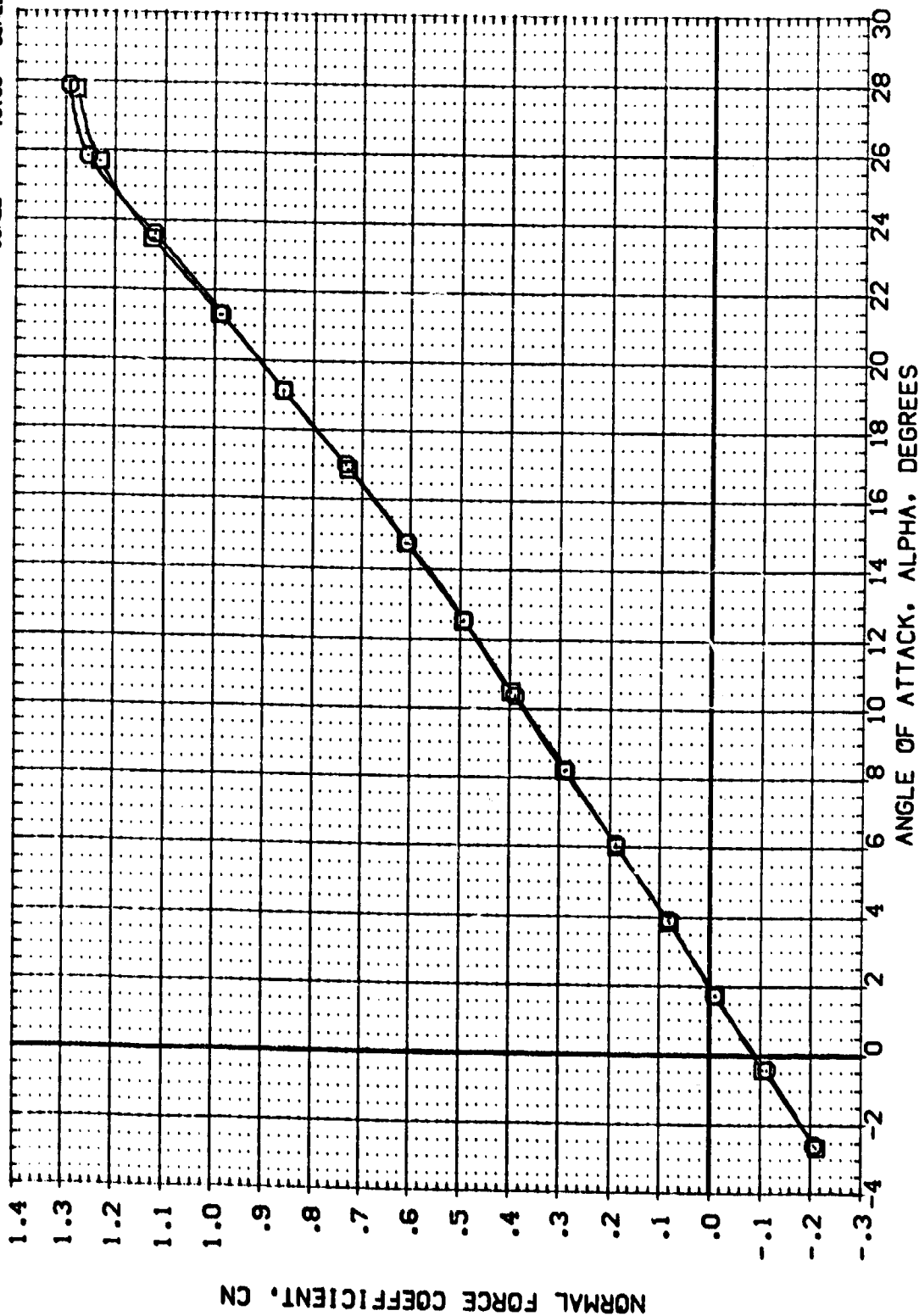


FIGURE 7 1398 ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 4.70



DATA SET SYMBOL: 0A17, L1PT1 38.0R8 3. (B) 9C7F5M4 ((V107E23)) (V7RS)
 (APPOC2) 0A17, L1PT1 38.0R8 3. (B) 9C7F5M4 ((V107E23)) (V7RS)
 (APPOC8)

ELEVTR BDFLAP SPOBRK RUDDER
 .000 -14.250 24.520 .000
 .000 -14.250 54.920 .000

REFERENCE INFORMATION
 SREF 87.1560 SC. IN.
 LREF 19.3545 INCHES
 BREF 14.0502 INCHES
 XMRP 12.5770 INCHES
 YMRP .0000 INCHES
 ZMRP 6.0000 INCHES
 SCALE .0150

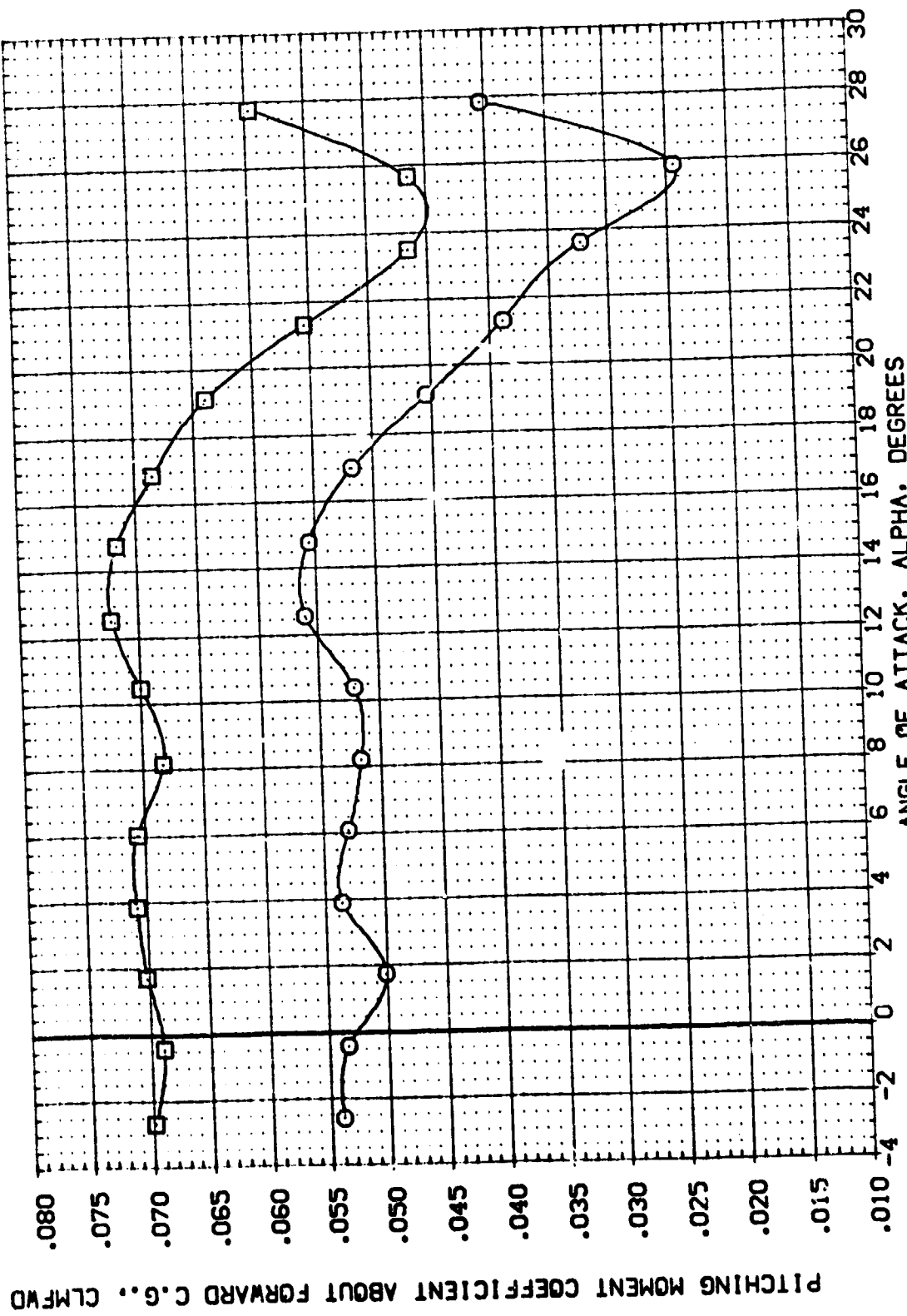


FIGURE 7 1398 ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVTR		BOFLAP		SPDRBK		RUDDER		REFERENCE INFORMATION	
(APPO02)	□	0A17.L1PT138.008	3.(B1SC7FSM)(V107E23)(V7RS)	.000	-14.250	.000	24.920	.000	SREF	87.1560	50.1N.	SREF	87.1560
(APPO08)	□	0A17.L1PT138.008	3.(B1SC7FSM)(V107E23)(V7RS)	.000	-14.250	.000	54.920	.000	LREF	19.3545	INCHES	LREF	19.3545
									BREF	14.0502	INCHES	BREF	14.0502
									YPRP	12.5770	INCHES	YPRP	12.5770
									ZPRP	6.0000	INCHES	ZPRP	6.0000
									SCALE	.0150	SCALE	SCALE	.0150

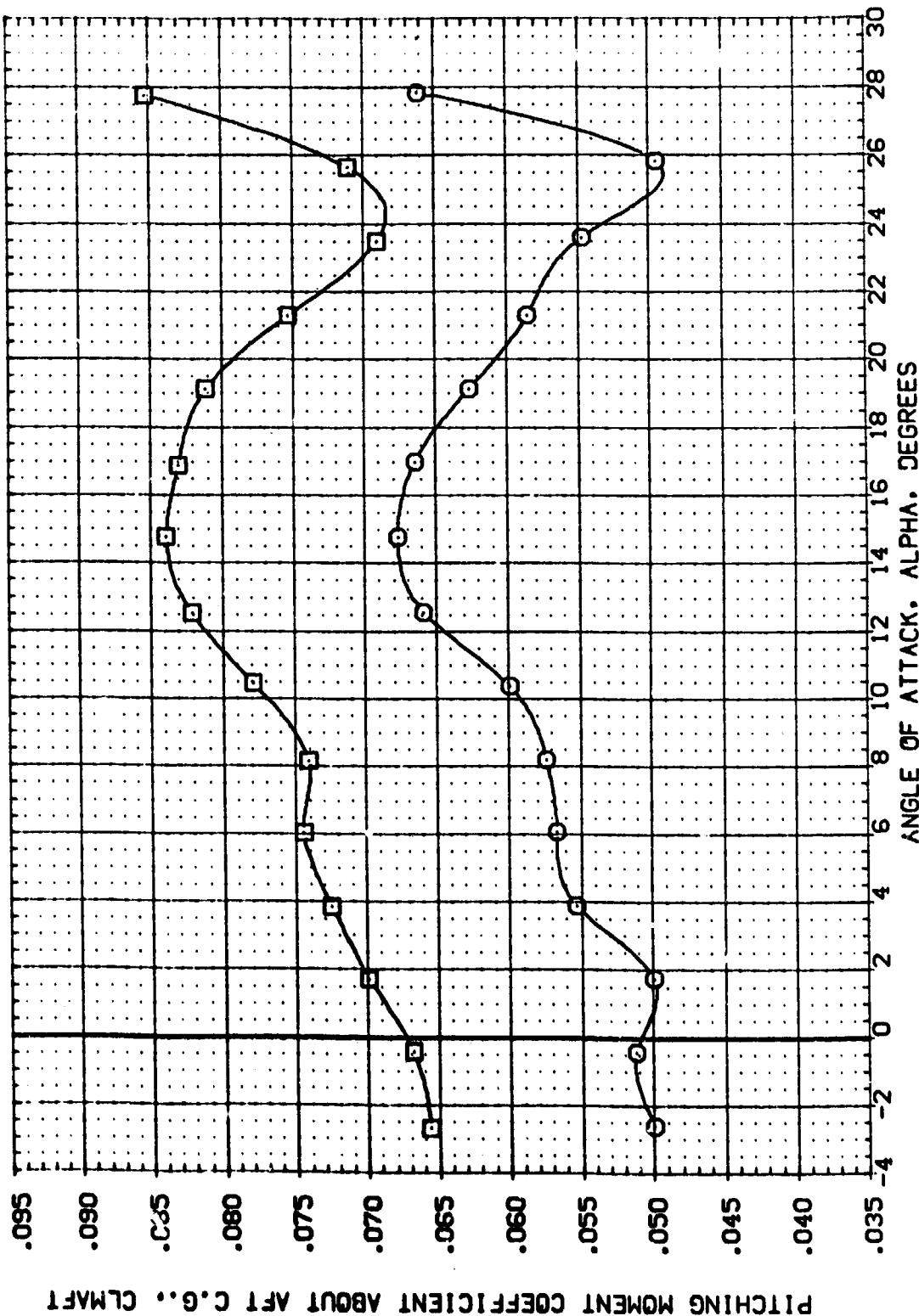
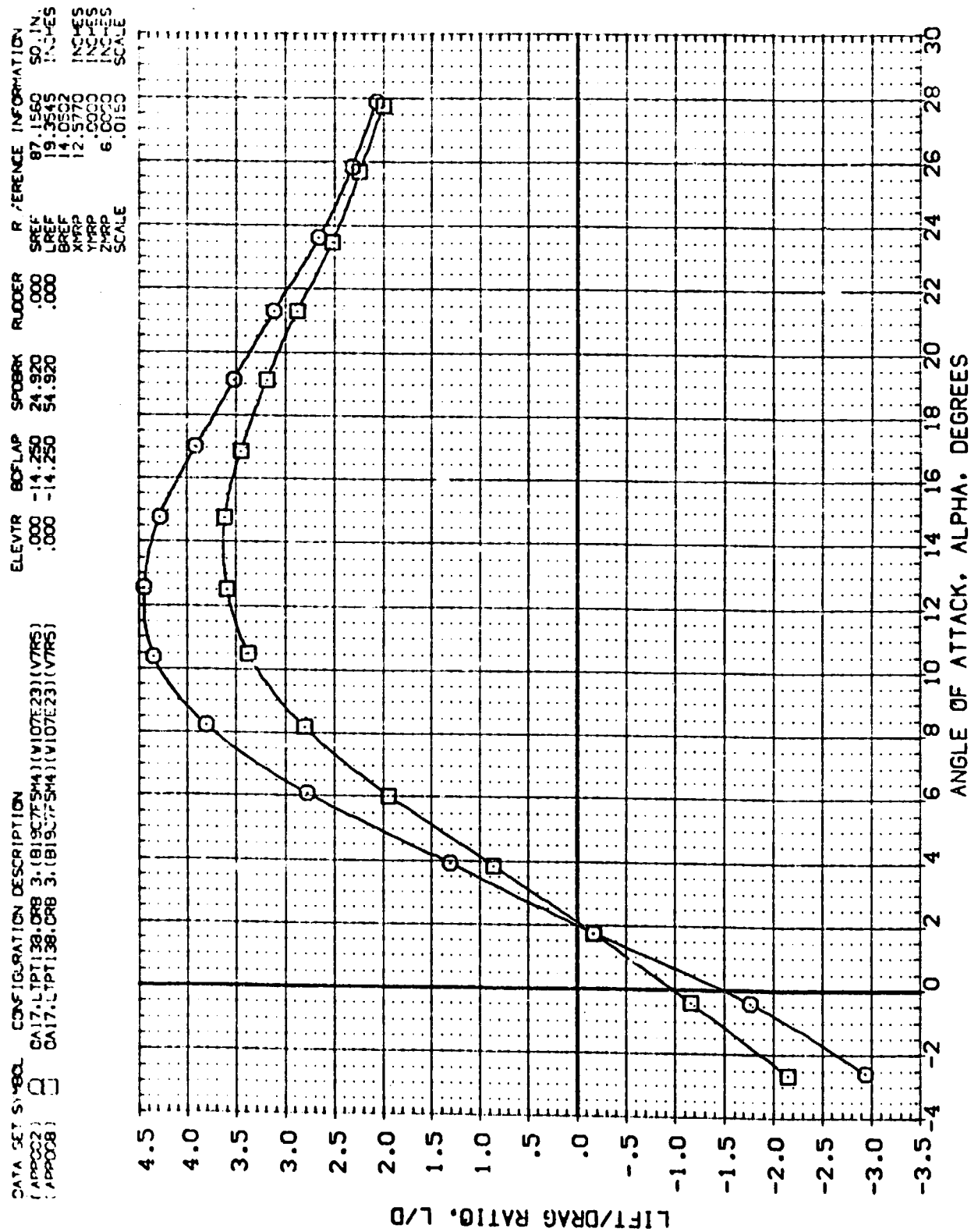


FIGURE 7 1398 ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 4.70



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION	
(APPO02)	0A17.L TPT138.0R8 3.(B19CTFSM4)(V107E23)(V7R5)	.000	-14.250	24.920	.000	SREF	87.1560
(APPO08)	0A17.L TPT138.0R8 3.(B15CTFSM4)(V107E23)(V7R5)	.000	-14.250	54.920	.000	LREF	19.3545
						BREF	14.0502
						XMRP	12.5770
						YMRP	.0000
						ZMRP	.0000
						SCALE	.0150
							INCHES
							INCHES
							SCALE

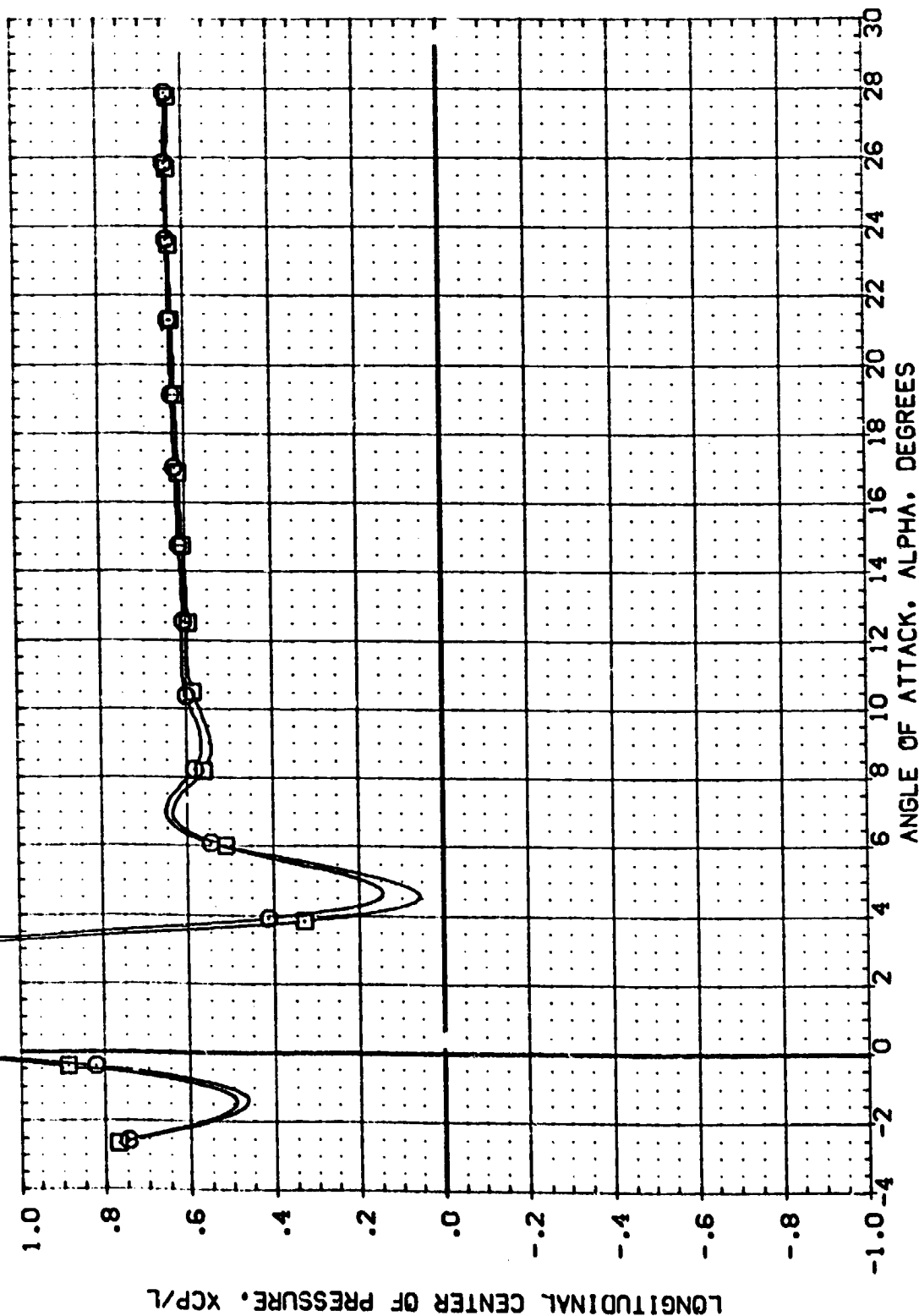


FIGURE 7 139B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APPO02)	DA17.LTPT138.058 3.(B19C7F544)(V107E23)(V7R5)	.000	-14.250	24.920	.000	SREF 87.1560 SO.IN.
(APPO08)	DA17.LTPT138.058 3.(B19C7F544)(V107E23)(V7R5)	.000	-14.250	54.920	.000	LREF 19.3545 INCHES
						BREF 14.0502 INCHES
						XMRP 12.5770 INCHES
						VMRP .0000 INCHES
						ZMRP 6.0000 INCHES
						SCALE .0150

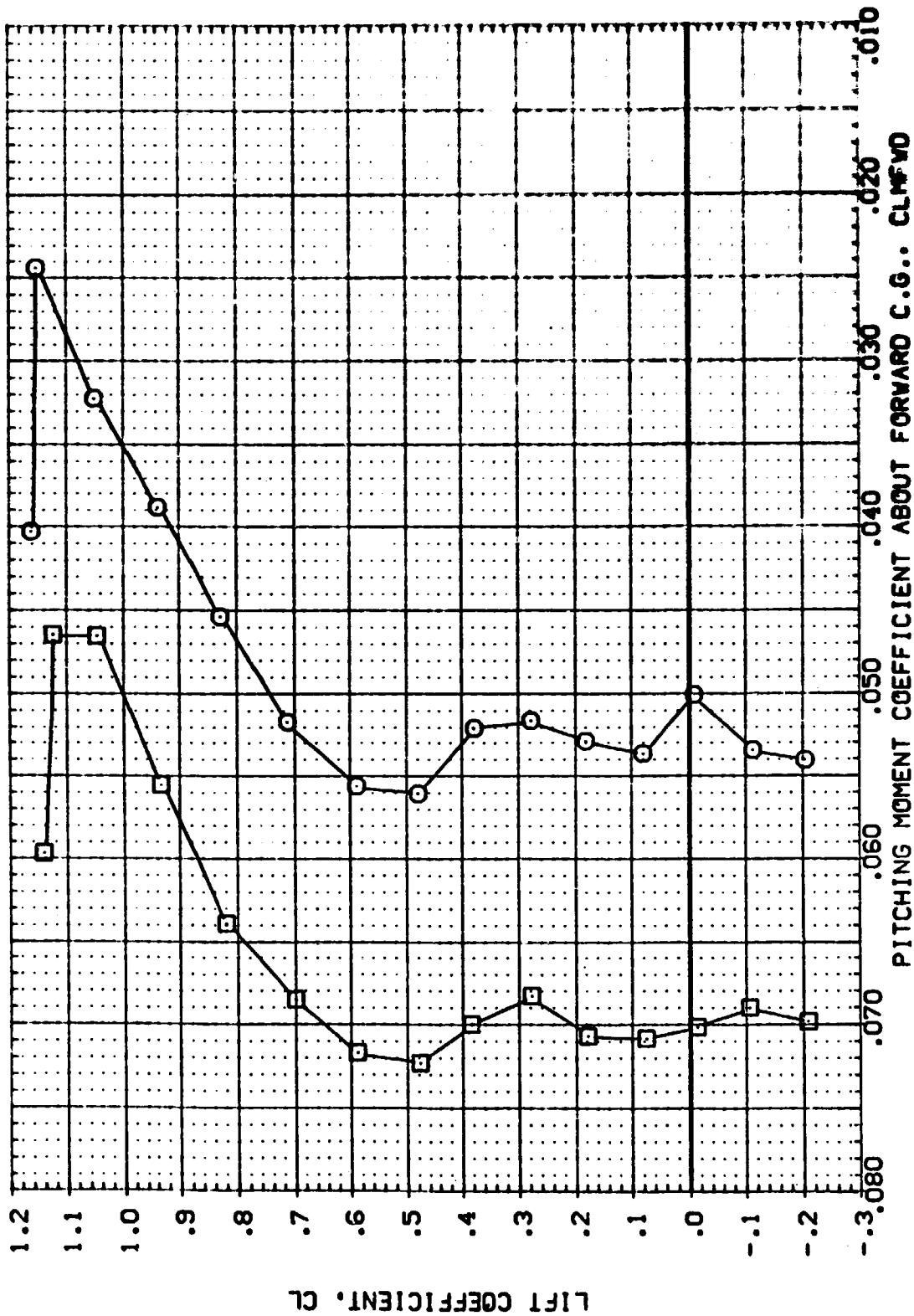


FIGURE 7 1398 ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL: [APPO2] [APPO3]
 CONFIGURATION DESCRIPTION: CA17.L1PT|38.088 3.(8|SC7FS4)|(V107E23)|(V7RS)
 CA17.L1PT|38.088 3.(8|SC7FS4)|(V107E23)|(V7RS)
 ELEVTR: .000 -14.250 .000 -14.250
 SPDRN: .000 24.500 24.500
 REFERENCE INFORMATION: 87.1289 88.14 100.01
 13.243 14.243 15.243
 16.243 17.243 18.243
 19.243 20.243 21.243
 22.243 23.243 24.243
 25.243 26.243 27.243
 28.243 29.243 30.243
 31.243 32.243 33.243
 34.243 35.243 36.243
 37.243 38.243 39.243
 40.243 41.243 42.243
 43.243 44.243 45.243
 46.243 47.243 48.243
 49.243 50.243 51.243
 52.243 53.243 54.243
 55.243 56.243 57.243
 58.243 59.243 60.243
 61.243 62.243 63.243
 64.243 65.243 66.243
 67.243 68.243 69.243
 70.243 71.243 72.243
 73.243 74.243 75.243
 76.243 77.243 78.243
 79.243 80.243 81.243
 82.243 83.243 84.243
 85.243 86.243 87.243
 88.243 89.243 90.243
 91.243 92.243 93.243
 94.243 95.243 96.243
 97.243 98.243 99.243
 100.243

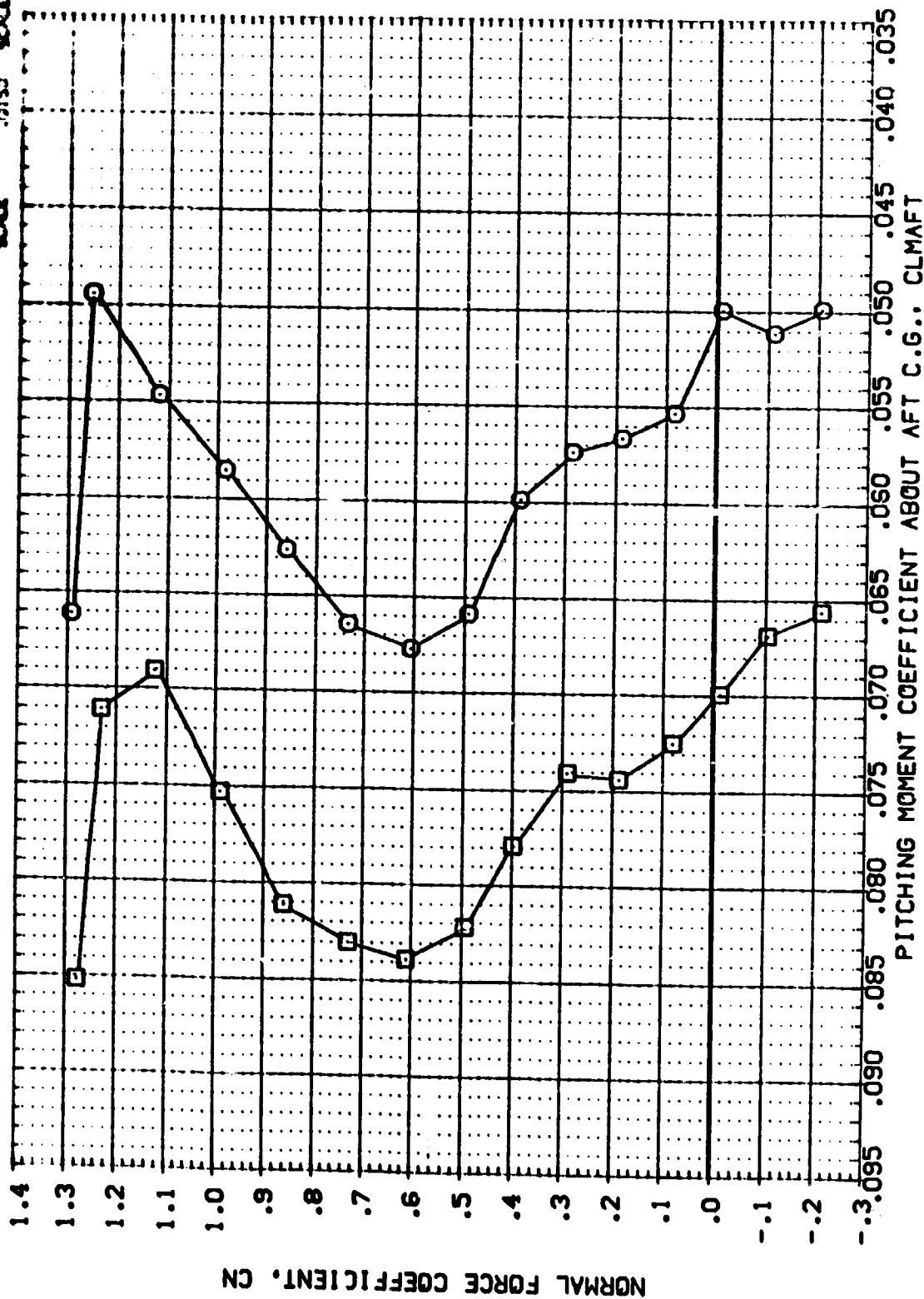
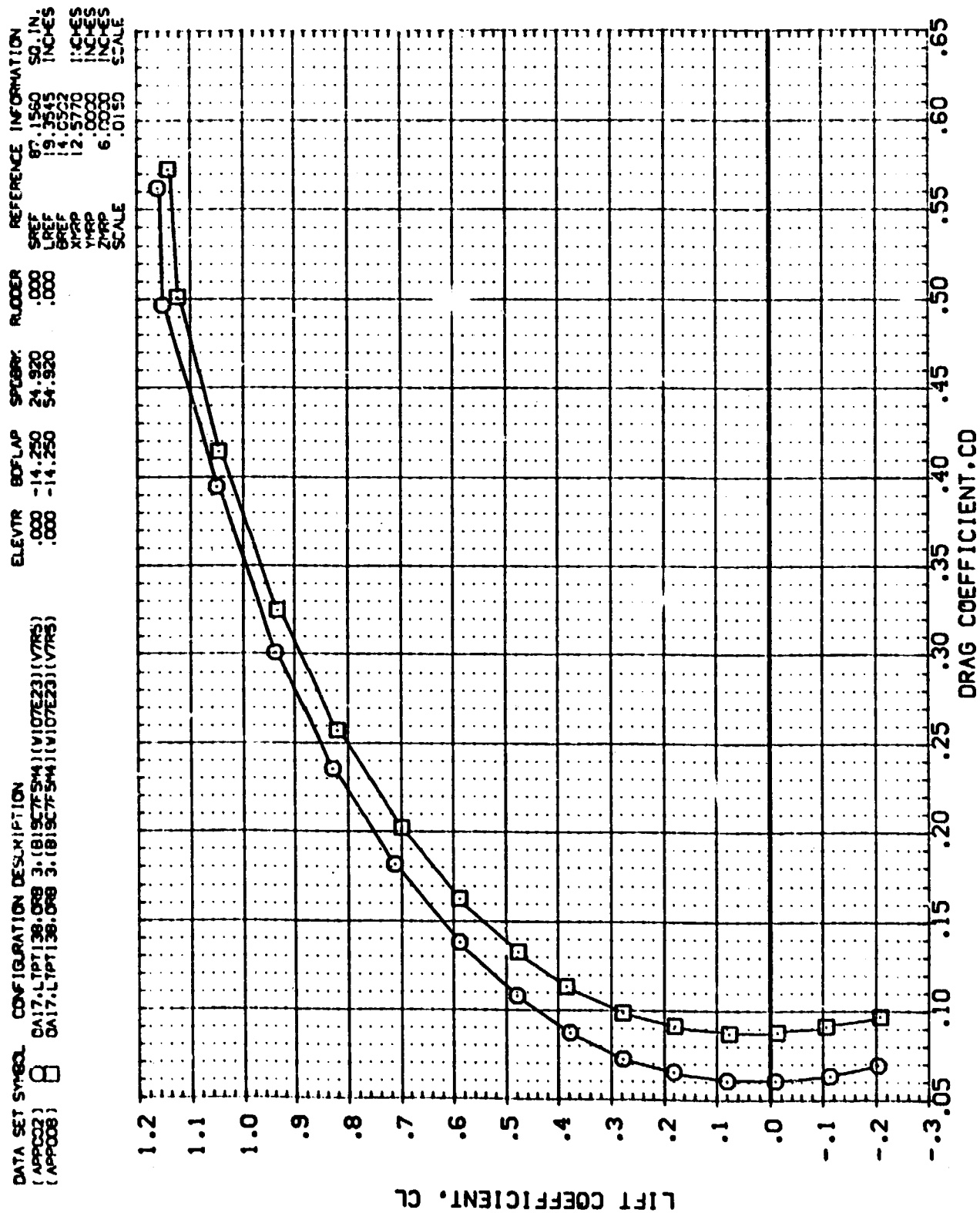


FIGURE 7 139B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 4.70



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BDFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APPO02)	DA17/LTPT138.058 3.(815C775M)(V107E23)(V7R5)	.000	-14.250	24.520	.000	SREF 87.1560 50.14
(APPO03)	DA17/LTPT138.058 3.(815C775M)(V107E23)(V7R5)	.000	-14.250	54.520	.000	LREF 19.3545 INCHES
						BREF 14.0502 INCHES
						XREF 12.5770 INCHES
						YREF .0000 INCHES
						ZREF 6.0000 INCHES
						SCALE .0150

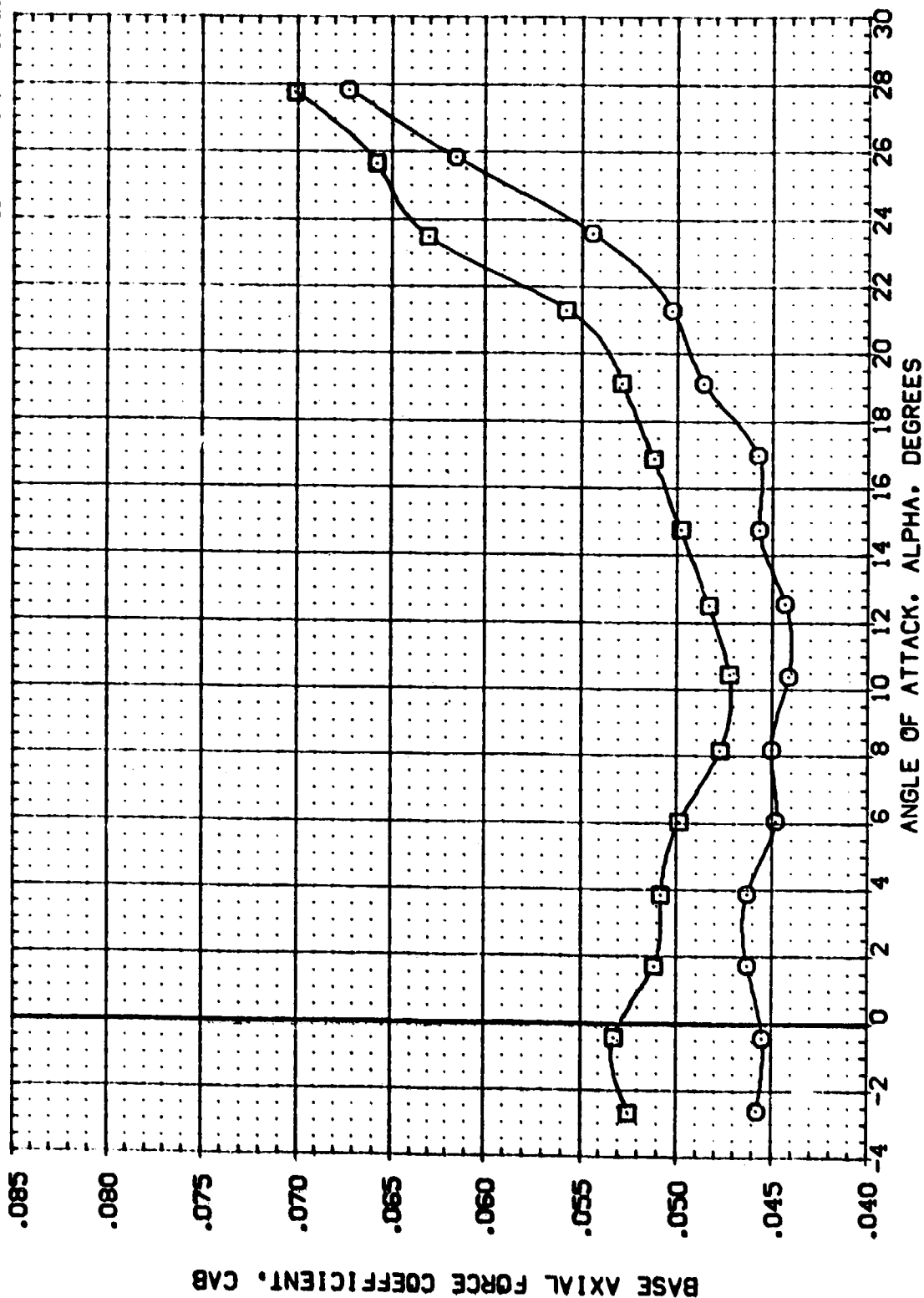


FIGURE 7 1398 ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL (APPO02) (APPO08)

CONFIGURATION DESCRIPTION
 CA17.LTPT138.CRB 3.(B19C7F5M)(V107E23)(V7RS)
 CA17.LTPT138.CRB 3.(B19C7F5M)(V107E23)(V7RS)

ELEVTR 80FLAP SPOBRK RUDDER
 .000 -14.250 24.920 .000
 .000 -14.250 54.920 .000

REFERENCE INFORMATION
 SREF 87.1560 50.IN.
 LREF 19.3545 INCHES
 BREF 14.0502 INCHES
 XMRP 12.5770 INCHES
 YMRP 6.0000 INCHES
 ZMRP 6.0000 INCHES
 SCALE .0150 SCALE

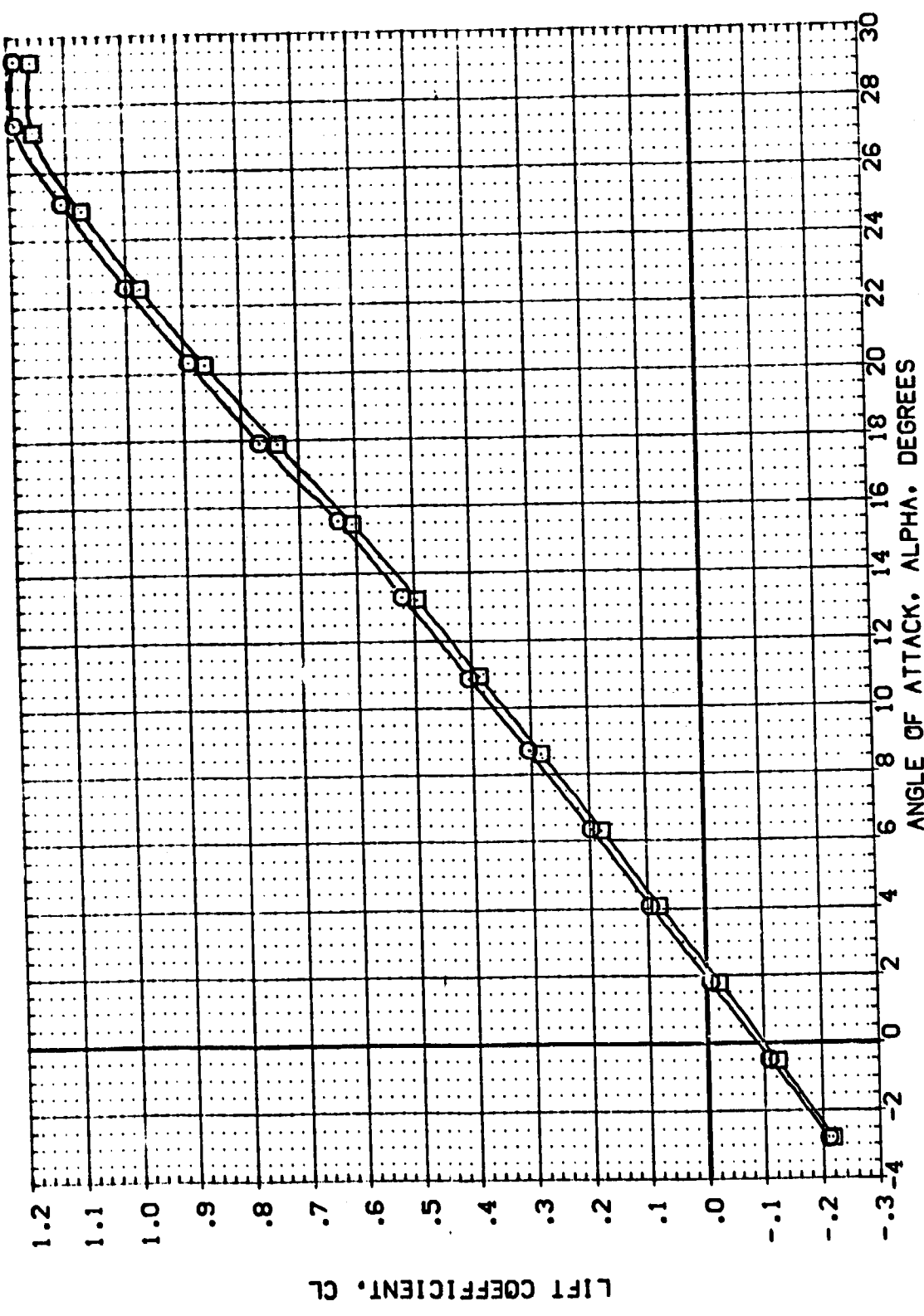


FIGURE 7 139B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL: ☐ CONFIGURATION DESCRIPTION: 0A17.LTPT138.0R8 3.(819C7F5M4)(V107E23)(V7R5)
 (APPOC2) ☐ 0A17.LTPT138.0R8 3.(819C7F5M4)(V107E23)(V7R5)
 (APPOC8) ☐

ELEVTR BOFLAP SPOBRK RUDDER
 .000 -14.250 24.920 .000
 .000 -14.250 54.920 .000

REFERENCE INFORMATION
 SREF 87.1550 50.1 IN.
 LREF 19.3545 INCHES
 BREF 14.6502 INCHES
 XTRP 12.5770 INCHES
 YTRP .0000 INCHES
 ZTRP 6.0000 INCHES
 SCALE .0150

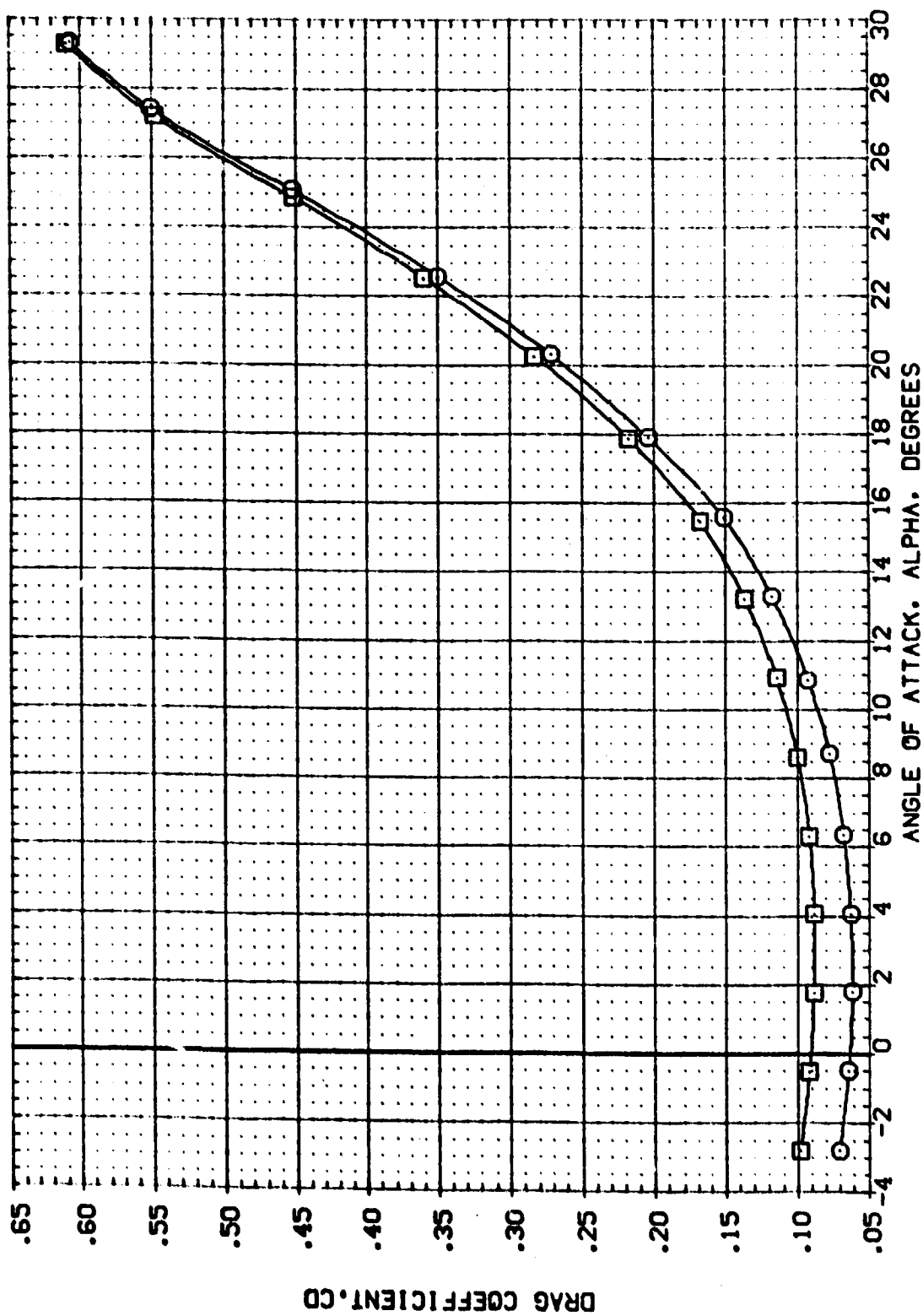
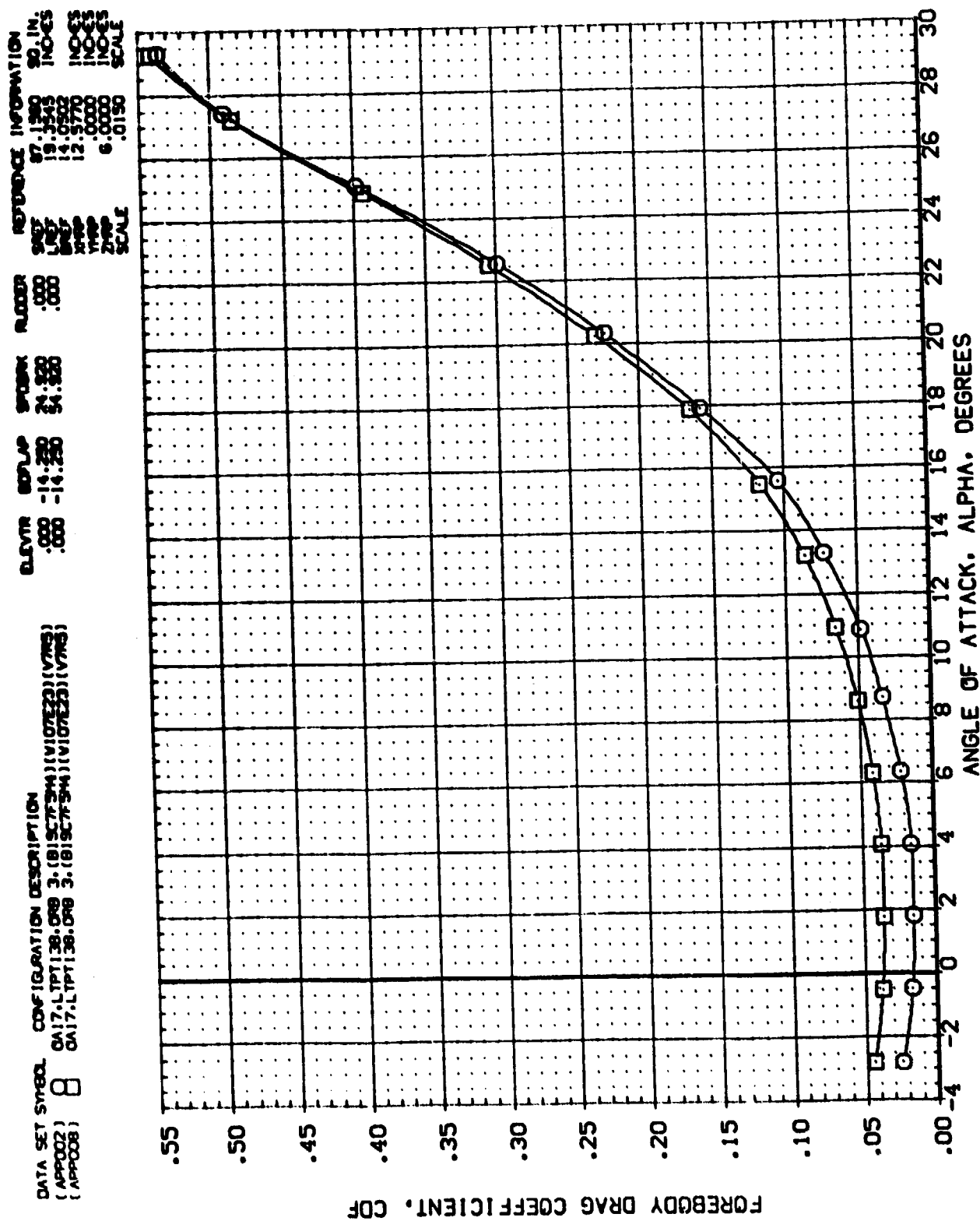


FIGURE 7 139B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(AJRN/L = 10.00



PAGE 111

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPDRBK	RLODER	REFERENCE INFORMATION
(APPOC2)	CA17.LTPT138.0R8 3.(B19C7FSM4)(V107E23)(V7RS)	.000	-14.250	24.920	.000	SREF 87.1560 50.1N
(APPOC8)	CA17.LTPT138.0R8 3.(B19C7FSM4)(V107E23)(V7RS)	.000	-14.250	54.920	.000	LREF 19.3545 INCHES
						BREF 14.0502 INCHES
						XMRP 12.5770 INCHES
						YMRP .0000 INCHES
						ZMRP 6.0000 INCHES
						SCALE .0150 SCALE

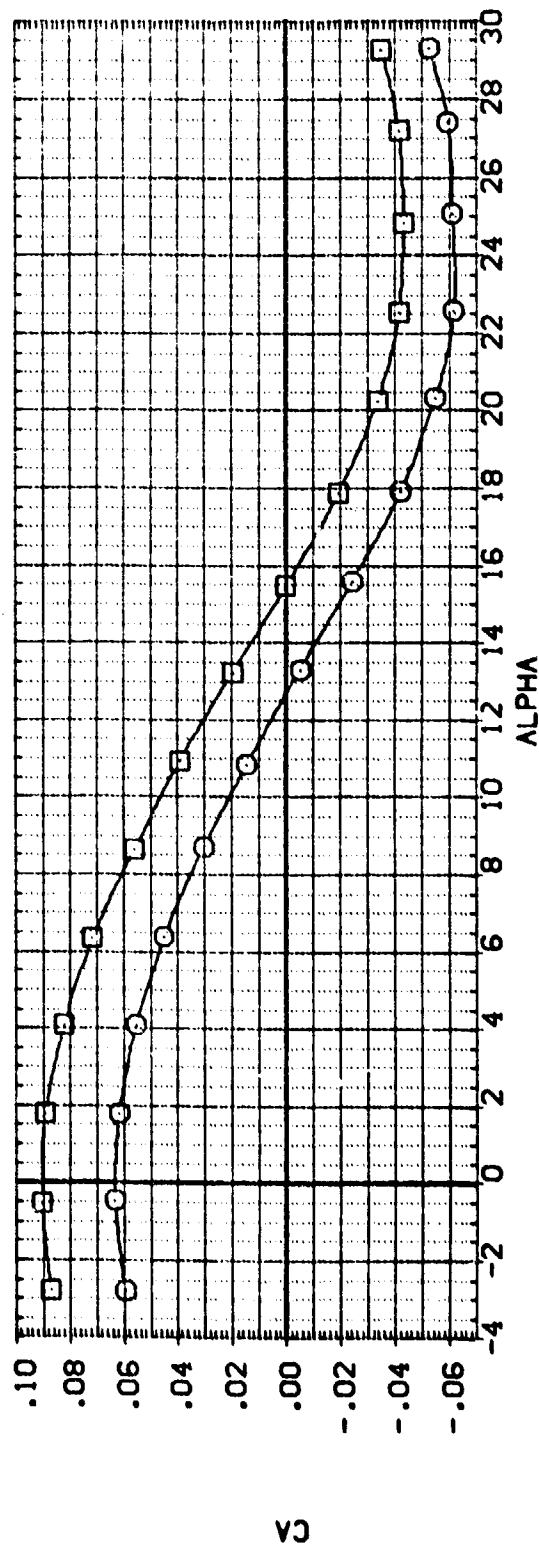
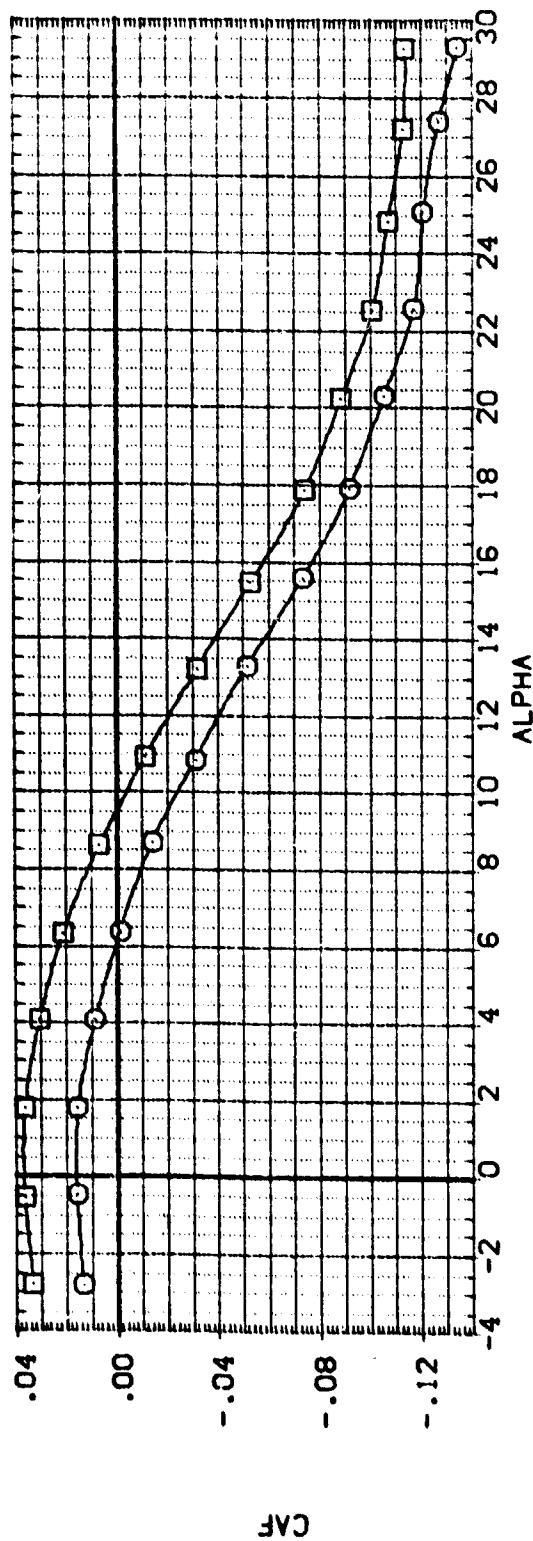


FIGURE 7 1398 ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 10.00



DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVTR		BOFLAP		SPOBRK		RUDDER		REFERENCE INFORMATION	
(APPC02)	□	0A17.LTPT138.058	3.(B19C7FSM4)(V107E23)(V7RS)	.000	-14.250	.000	24.920	.000	SREF	87.1560	50. IN.		
(APPC08)	□	CA17.LTPT138.058	3.(B19C7FSM4)(V107E23)(V7RS)	.000	-14.250	.000	54.920	.000	LREF	19.3545	INCHES		
									BREF	14.0502	INCHES		
									XTRP	12.5770	INCHES		
									YTRP	.0000	INCHES		
									ZTRP	6.0000	INCHES		
									SCALE	.0150	SCALE		

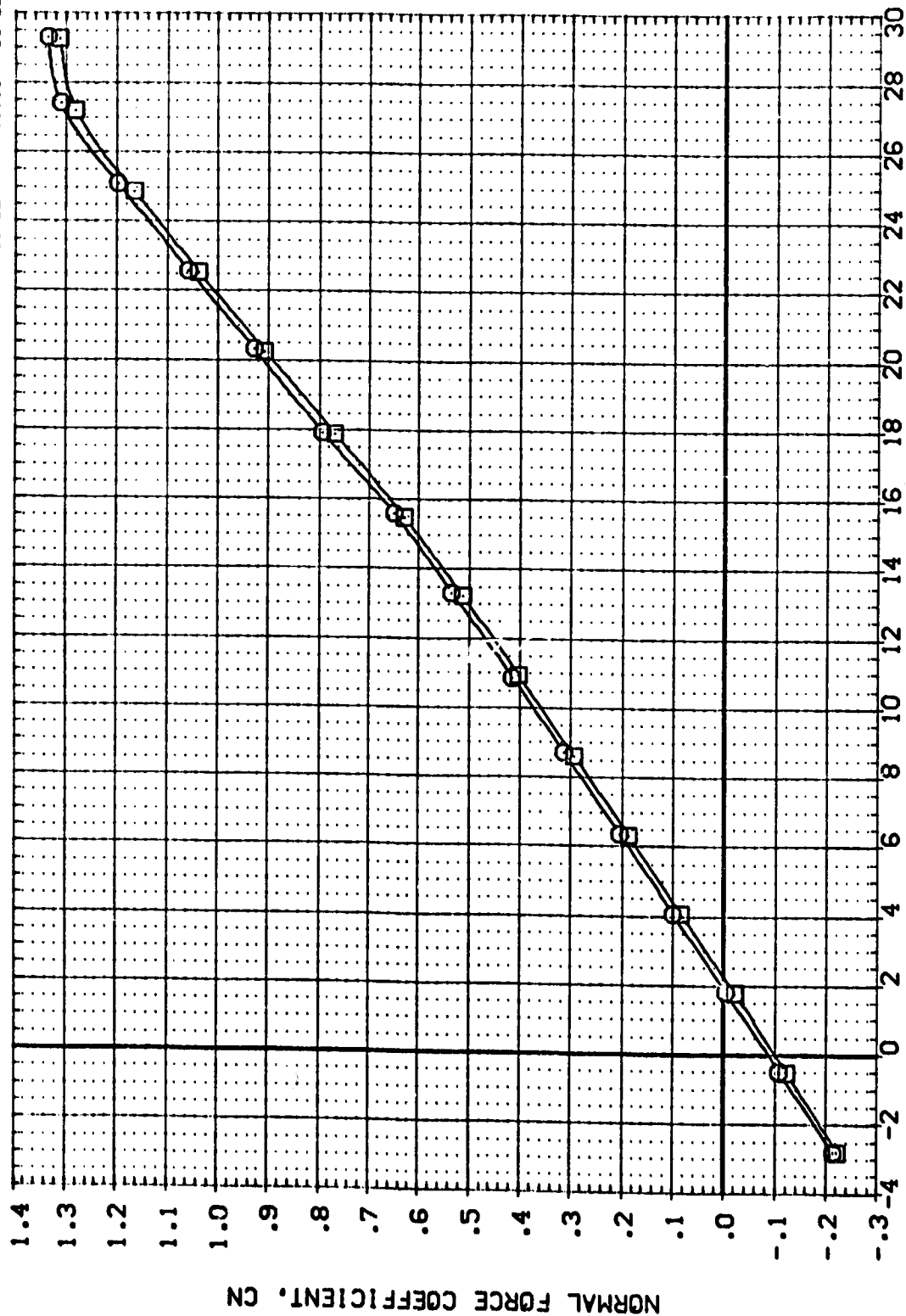


FIGURE 7 139B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 10.00

CONF: GURATION DESCRIPTION

DATA SET SYMBOL

CONF	DURATION	DESCRIPTION
0A17.LTPT138.0R9	3.(B19CTFSM4)	(V107E23)(V7R5)
0A17.LTPT138.0R8	3.(B19CTFSM4)	(V107E23)(V7R5)

ELEVTR	BOFLAP	SPDRBK
.000	-14.250	24.920
.000	-14.250	54.920

RUDDER
DOO.
DOO.

REFERENCE INFORMATION	
SREF	87.1560 SQ. IN.
LREF	19.3545 INCHES
BREF	14.0502 INCHES
XPRP	12.5770 INCHES
YPRP	.0000 INCHES
ZPRP	6.0000 INCHES
SCALE	.0150 SCALE

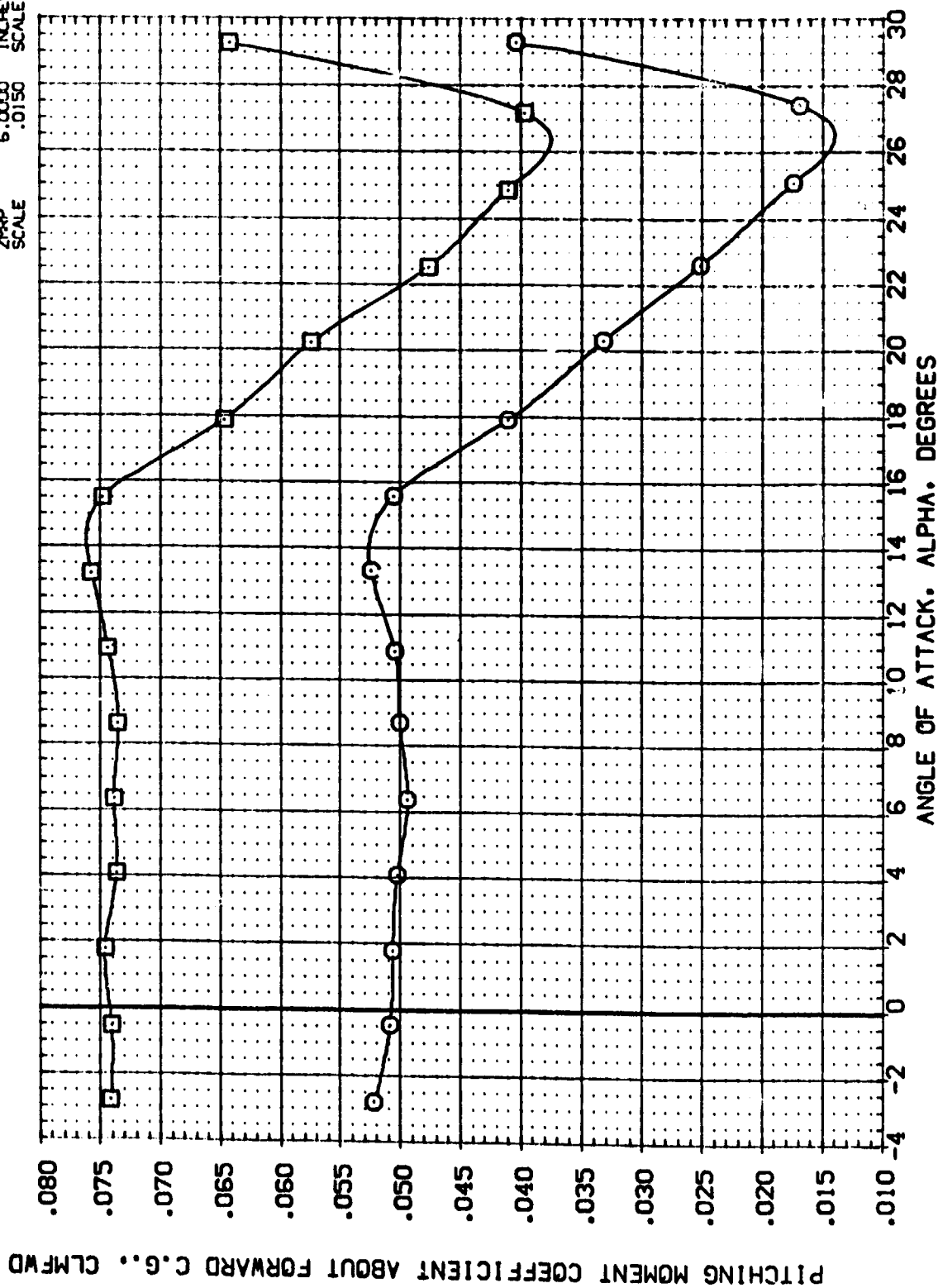


FIGURE 7 1398 ORBITER SPEED BRAKE DEFLECTION EFFECTS

$$\{A\}RN/L = 10.00$$



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APPC02)	GA17.LTPT138.CRB 3.(B19C7F5M4)(V107E23)(V7R5)	.000	-14.250	24.920	.000	SREF 87.1560 SQ.IN.
(APPC08)	GA17.LTPT138.CRB 3.(B19C7F5M4)(V107E23)(V7R5)	.000	-14.250	54.920	.000	LREF 19.3545 INCHES
						BREF 14.0502 INCHES
						XMRP 12.5770 INCHES
						YMRP .0000 INCHES
						ZMRP 6.0000 INCHES
						SCALE .0150

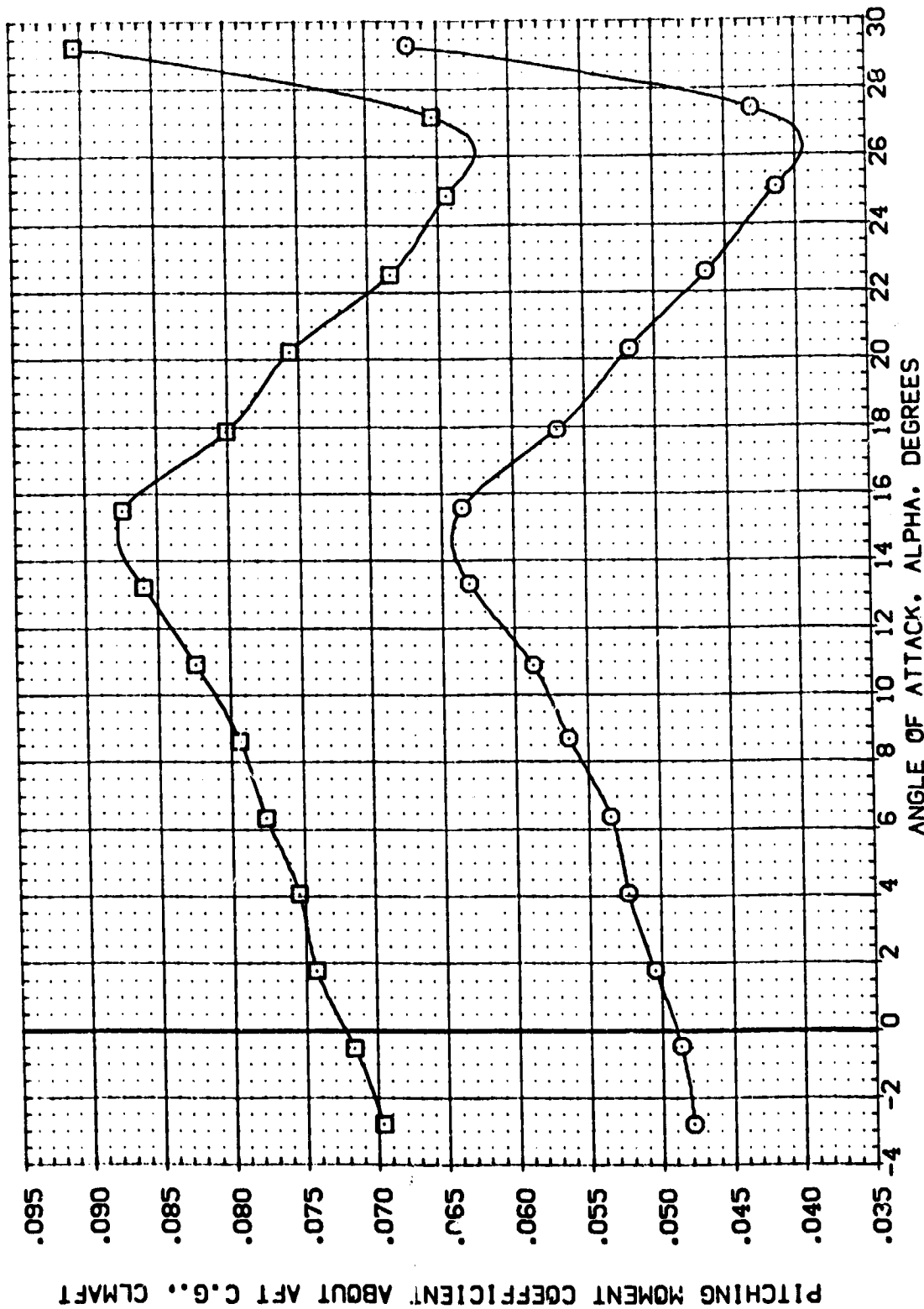


FIGURE 7 1398 ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL 8
 (APPROX) 0A17.LTPT138.CRS 3.(B1SC7FSM4)(V107E23)(V7RS)
 (APPROX) 0A17.LTPT138.CRS 3.(B1SC7FSM4)(V107E23)(V7RS)

CONFIGURATION DESCRIPTION

ELEVTR BOFLAP SPOBRK RUDDER
 .000 -14.250 24.920 .000
 .000 -14.250 54.920 .000

REFERENCE INFORMATION
 SREF 97.1560 50.1N.
 LREF 19.3545 INCHES
 BREF 14.0502 INCHES
 XPRP 12.5770 INCHES
 YPRP .0000 INCHES
 ZPRP 6.0000 INCHES
 SCALE .0150 SCALE

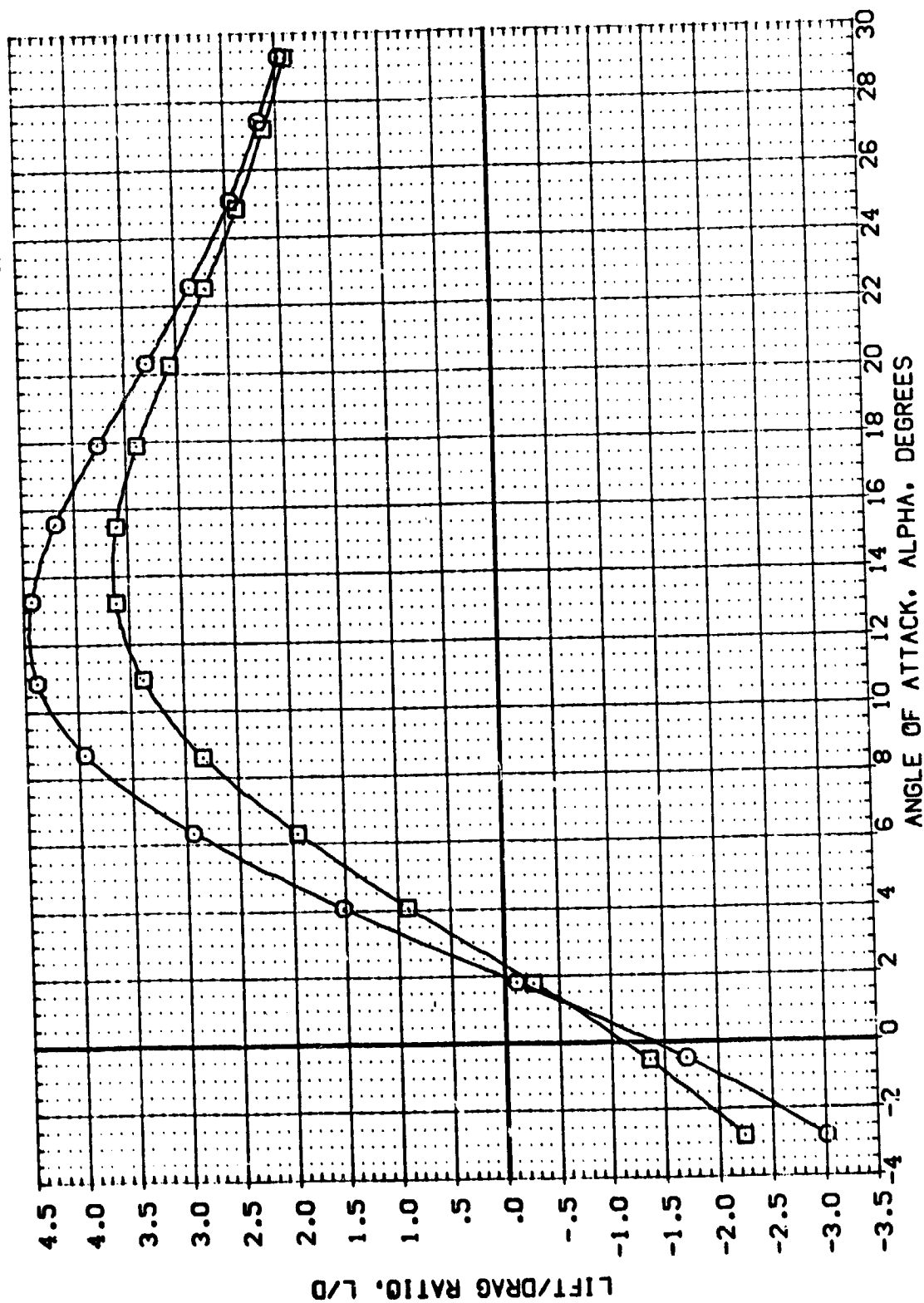


FIGURE 7 139B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 10.00

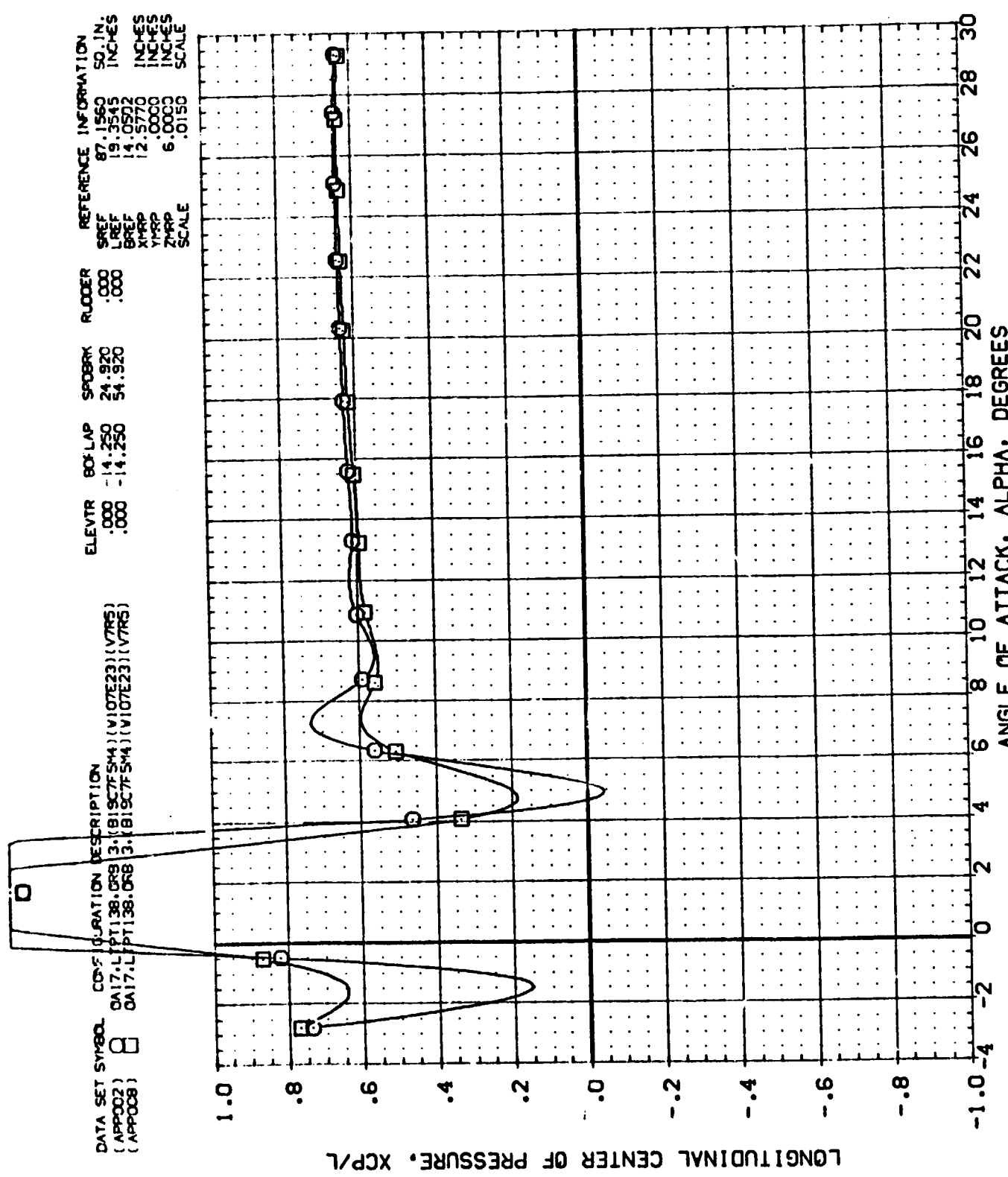
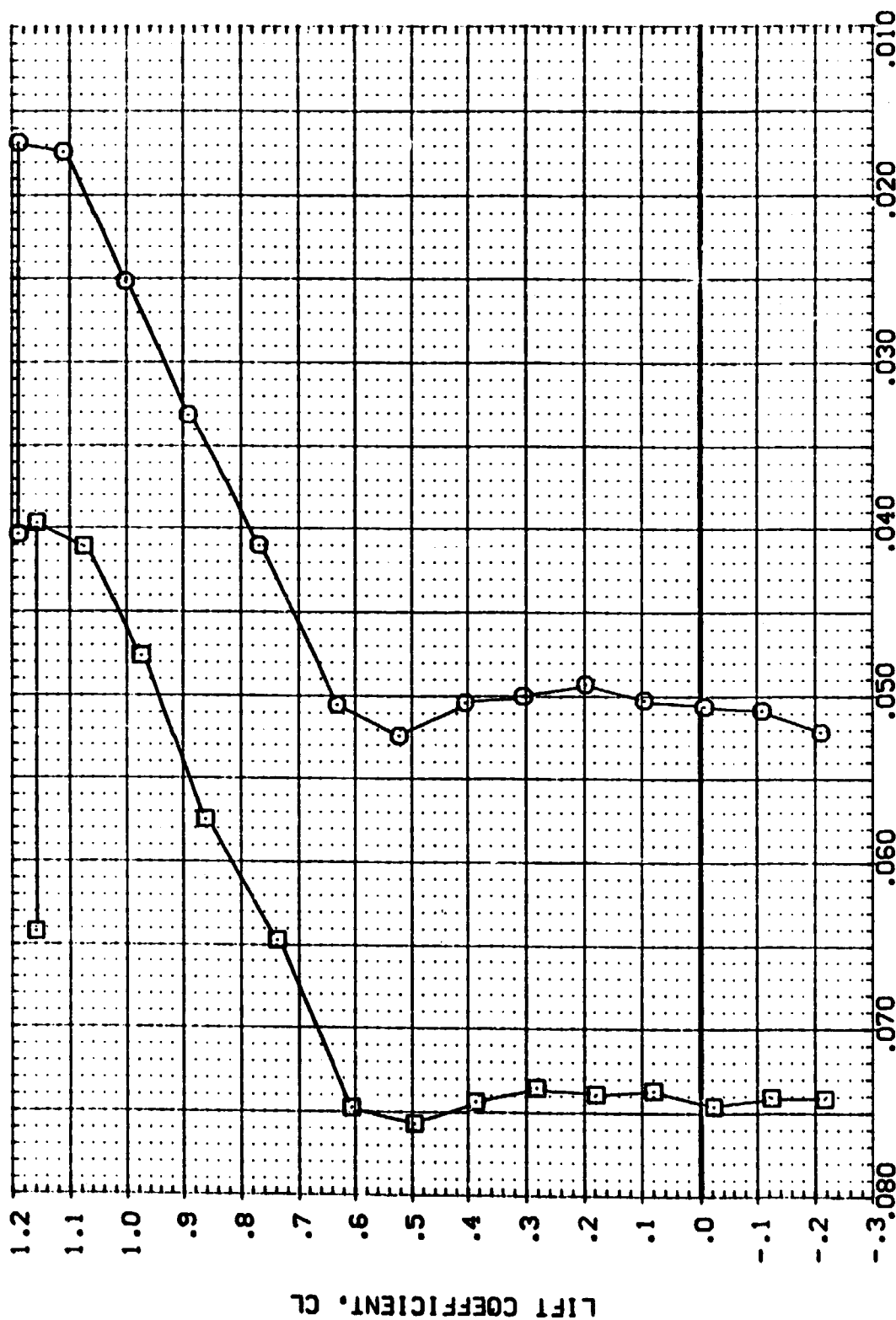


FIGURE 7 139B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 10.00

REFERENCE INFORMATION	
SREF	87.1560 SQ. IN.
LREF	19.3545 INCHES
BREF	14.0502 INCHES
XMRP	12.5770 INCHES
YMRP	0.0000 INCHES
ZMRP	6.0000 INCHES
SCALE	.0150 SCALE



PITCHING MOMENT COEFFICIENT ABOUT FORWARD C.G.: CLMFWO

FIGURE 7 1398 ORBITER SPEED BRAKE DEFLECTION EFFECTS

$$\{A\}RN/L = 10.00$$



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDER	REFERENCE INFORMATION
(APPO02)	0A17.LTPT138.DR8 3.(B1SC7554)(V107E23)(V7R5)	.000	-14.250	24.920	.000	SREF 87.1560 SO.IN.
(APPO08)	0A17.LTPT138.DR8 3.(B1SC7554)(V107E23)(V7R5)	.000	-14.250	54.920	.000	LREF 19.3545 INCHES
						BREF 14.0502 INCHES
						XTRP 12.5770 INCHES
						YTRP 6.0000 INCHES
						ZTRP 6.0000 INCHES
						SCALE .0150 SCALE

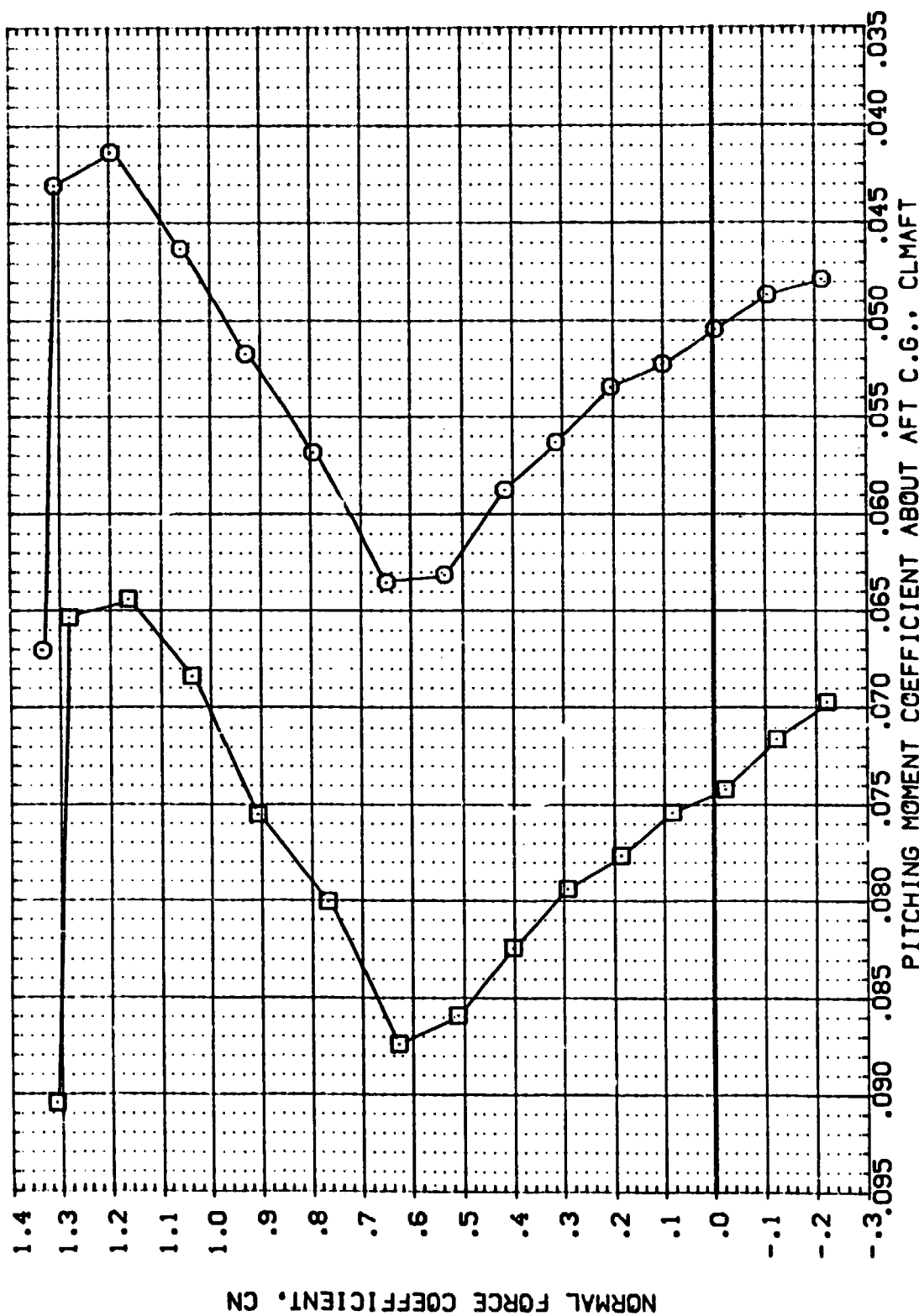


FIGURE 7 1398 ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL: DA17-LTPT138-OR8 3. (B1SC7FSM4)(V107E23)(V7R5)
 (APPC02) DA17-LTPT138-OR8 3. (B1SC7FSM4)(V107E23)(V7R5)
 (APPC03)

ELEVTR BOFLAP SPOBRK RUDDER
 .000 -14.250 24.920 .000
 .000 -14.250 54.920 .000

REFERENCE INFORMATION
 SREF 87.1560 SQ. IN.
 LREF 19.3545 INCHES
 BREF 14.0502 INCHES
 XTRP 12.5770 INCHES
 YTRP .0000 INCHES
 ZTRP 6.0000 INCHES
 SCALE .0150 SCALE

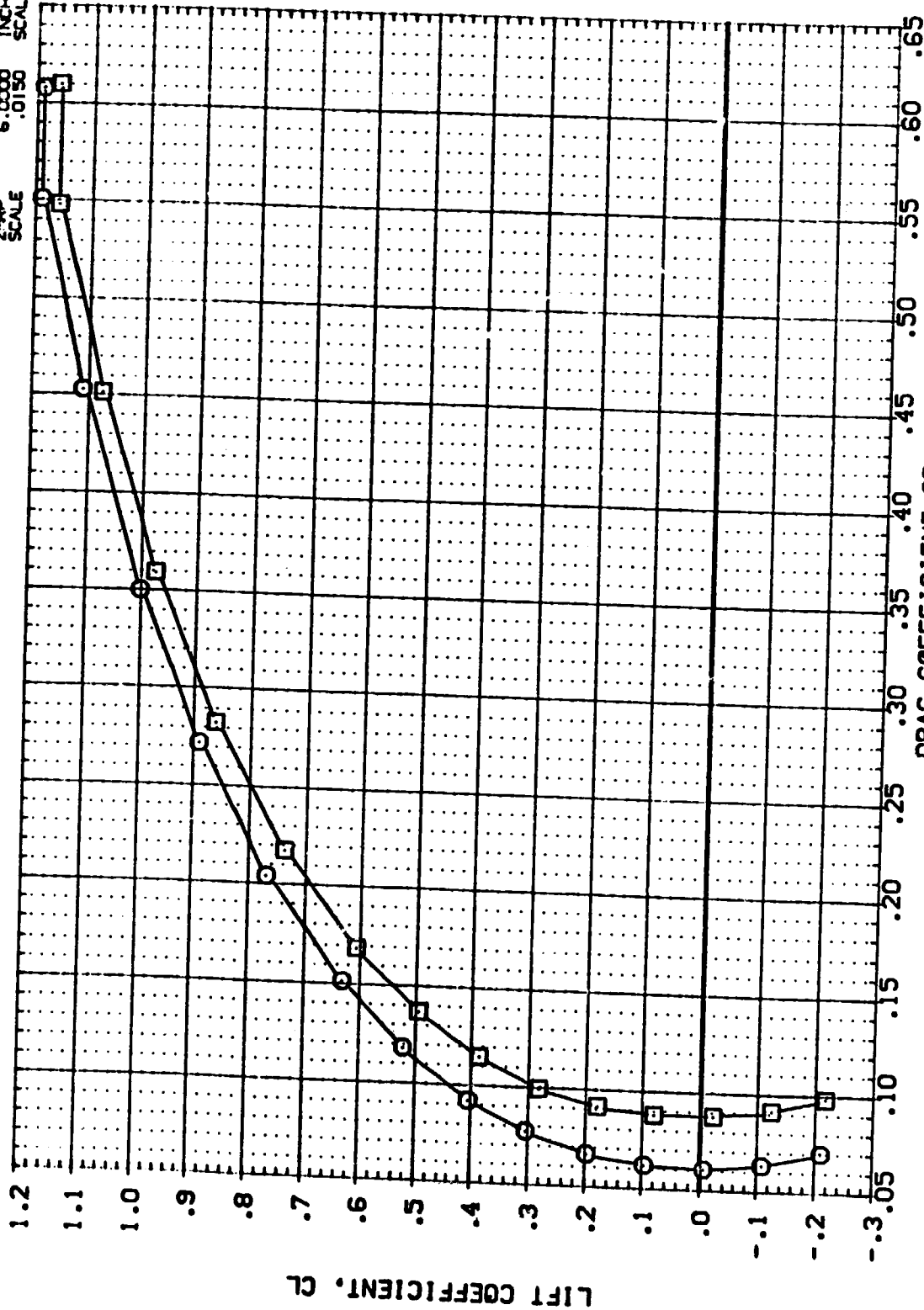


FIGURE 7 139B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 10.00



DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVTR		BOFLAP		SPOBRK		RUDDER		REFERENCE INFORMATION	
(RPP002)	□	0A17.LTPT138.058	3.(B1SC7F5M4)(V107F23)(V7R5)	.000	-14.250	.000	21.320	.000	SREF	87.1560	50. IN.	SREF	
(RPP008)	□	0A17.LTPT138.058	3.(B1SC7F5M4)(V107F23)(V7R5)	.000	-14.250	.000	54.920	.000	LREF	19.7545	IN-ES	LREF	
									BREF	14.0502	IN-ES	BREF	
									XMRP	12.5770	IN-ES	XMRP	
									YMRP	.0000	IN-ES	YMRP	
									ZMRP	6.0000	IN-ES	ZMRP	
									SCALE	.0150	SCALE	SCALE	

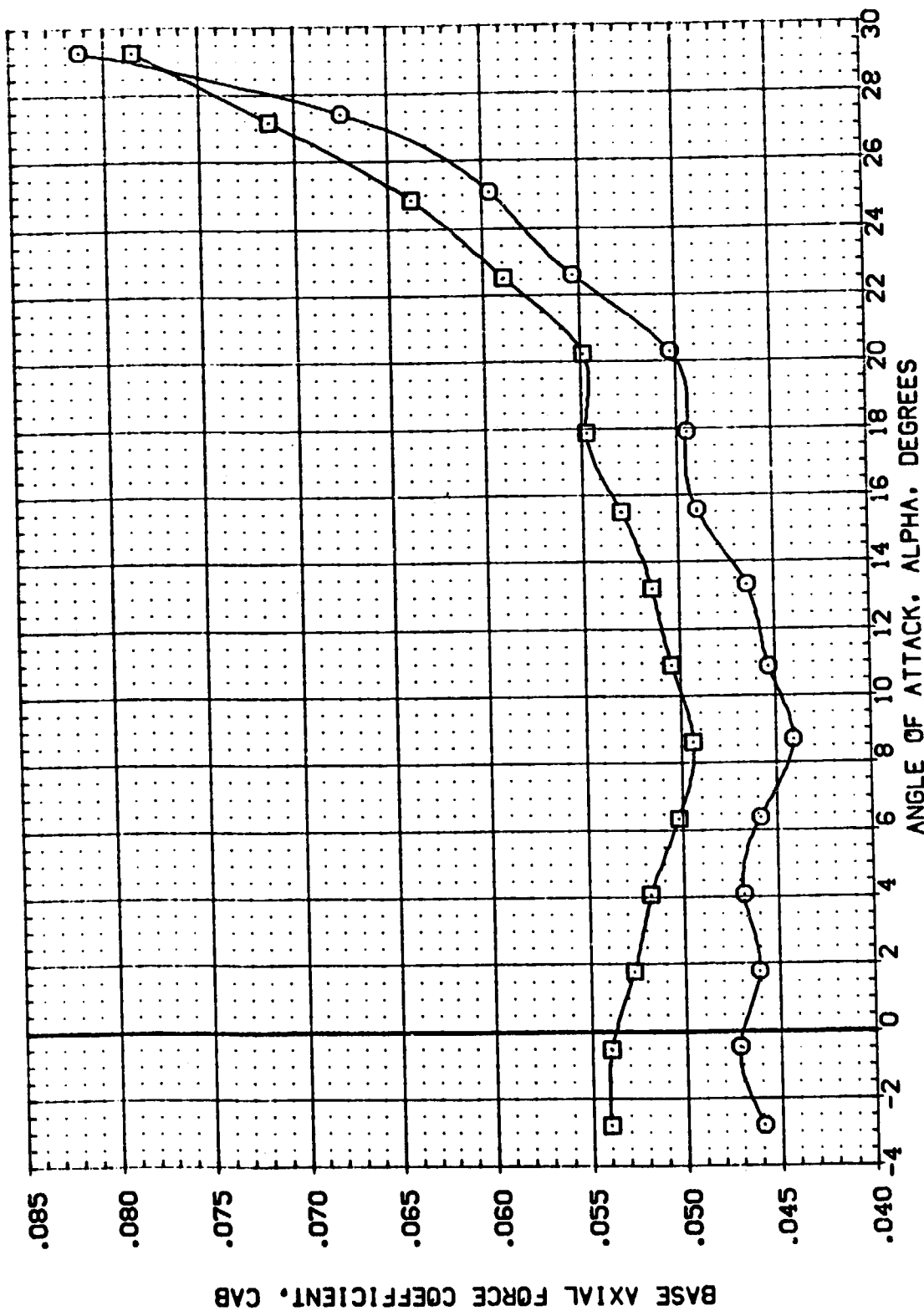


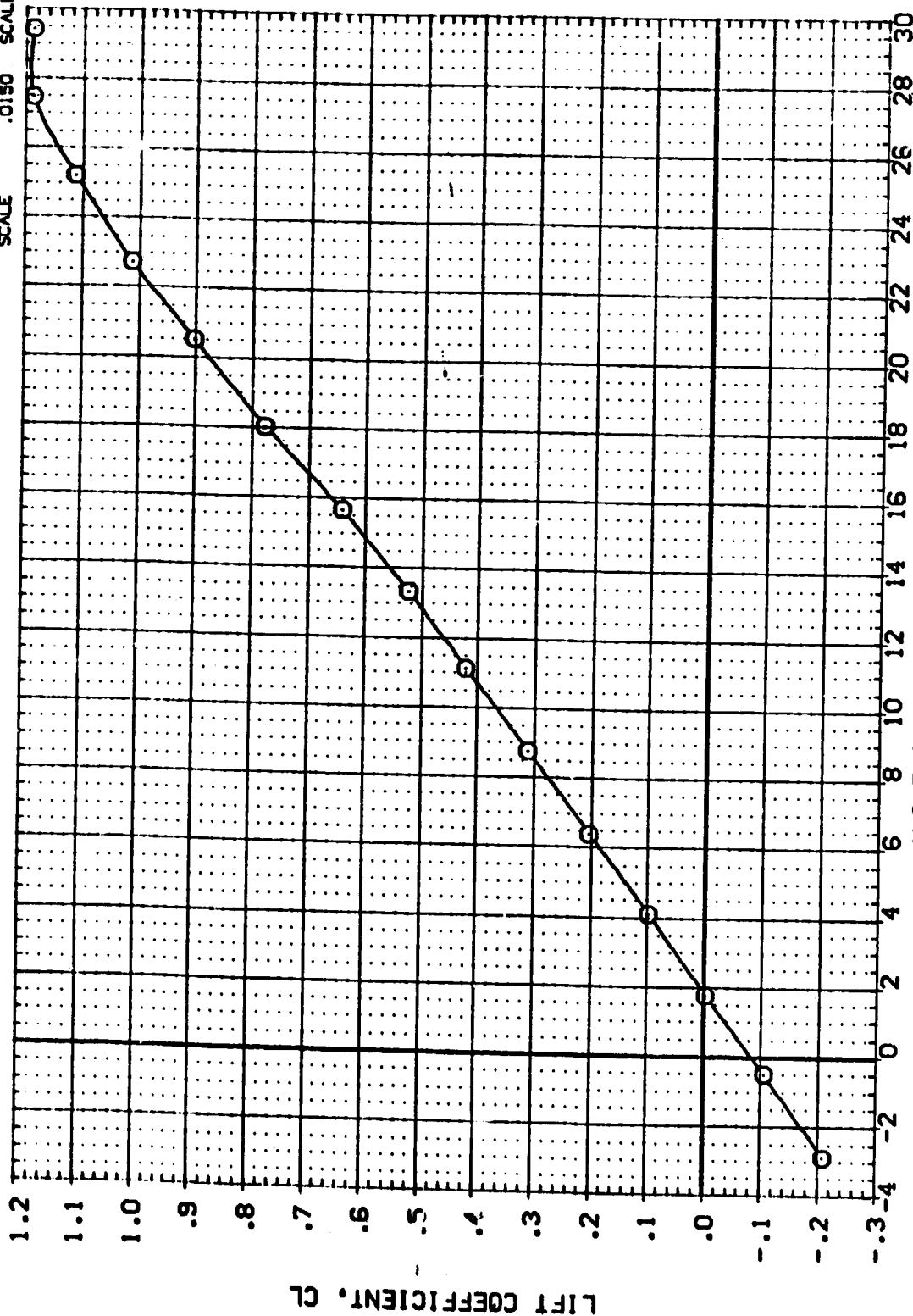
FIGURE 7 1398 ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL: 0A17-LTPT139-098 3. (B1SL7FSM)1V107E231(V7RS)
 (APPROX) DATA NOT AVAILABLE

ELEVTR BOFLAP SPOBRK RUDDER
 .000 -14.250 24.920 .000
 .000 -14.250 54.920 .000

REFERENCE INFORMATION
 SREF 87.1560 50. IN.
 LREF 19.3545 INCHES
 BREF 14.0502 INCHES
 XMRP 12.5770 INCHES
 YMRP .0000 INCHES
 ZMRP 6.0000 INCHES
 SCALE .0150 SCALE



ANGLE OF ATTACK, ALPHA, DEGREES

FIGURE 7 139B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 12.50

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVTR		BOFLAP		SPOBRK		RUDDER		REFERENCE INFORMATION	
(APPO02)	CA17.LIPT138.058	3.(819C7FSM4)	(V107E23)	(V7R5)	.000	-14.250	24.920	.000	SREF	87.1560	50. IN.		
(APPO08)	DATA NOT AVAILABLE				.000	-14.250	54.920	.000	LREF	19.3545	INCHES		
									XMRP	14.0502	INCHES		
									YMRP	12.5770	INCHES		
									ZMRP	.0000	INCHES		
									SCALE	6.0000	INCHES		
										.0150	SCALE		

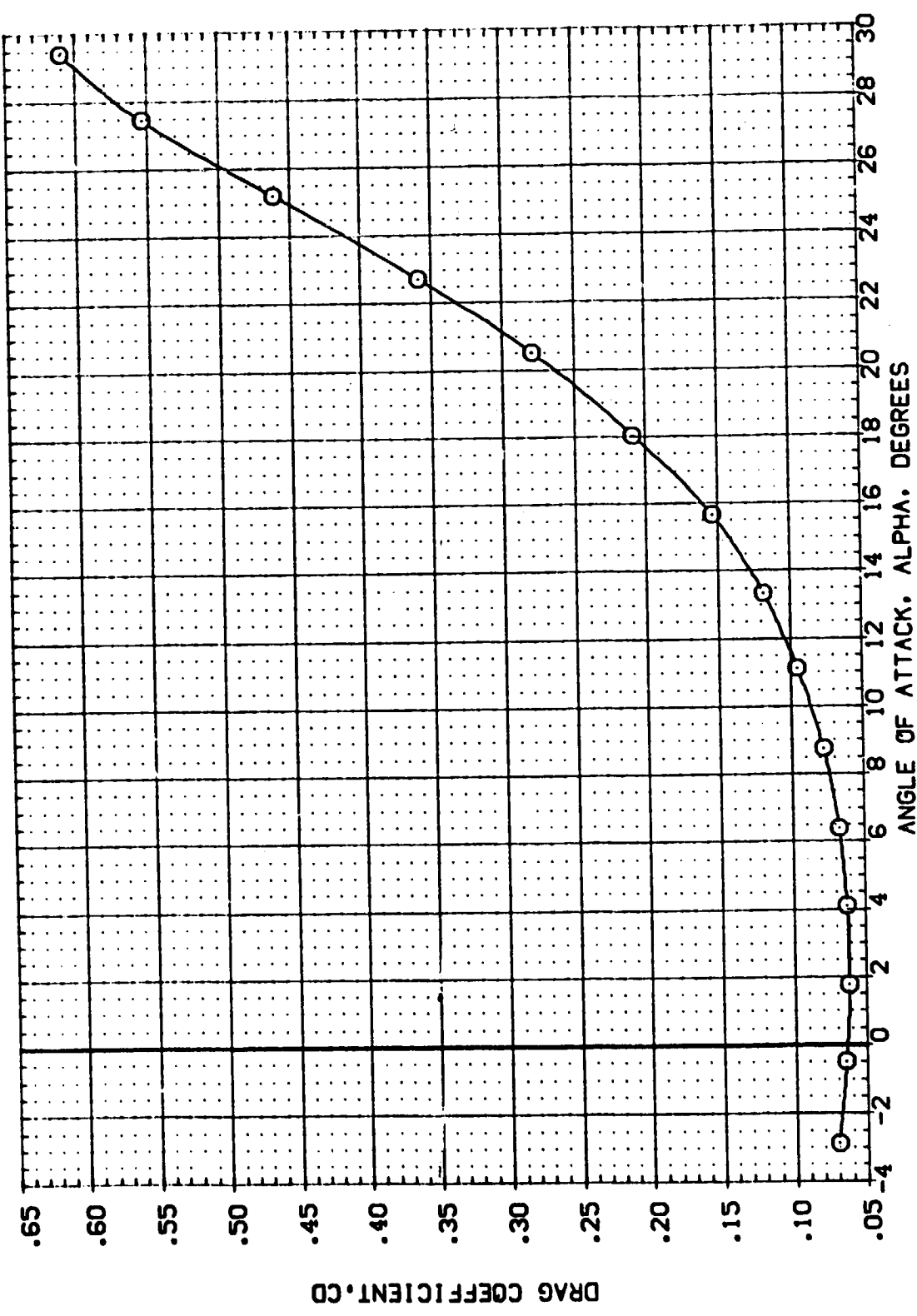


FIGURE 7 1398 ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 12.50

DATA SET SYMBOL: ☐ (APPO2)
 CONFIGURATION DESCRIPTION: DA17-LTPT138:ORB 3-(B15C7FSM4)(V107E23)(V7R5)
 DATA NOT AVAILABLE

ELEVTR BOFLAP SPOBRK RUDDER
 .000 -14.250 24.920 .000
 .000 -14.250 54.920 .000

REFERENCE INFORMATION
 SREF 87.1560 50. IN.
 LREF 19.3543 INCHES
 BREF 14.0502 INCHES
 XMRP 12.5770 INCHES
 YMRP .0000 INCHES
 ZMRP 6.0000 INCHES
 SCALE .0150

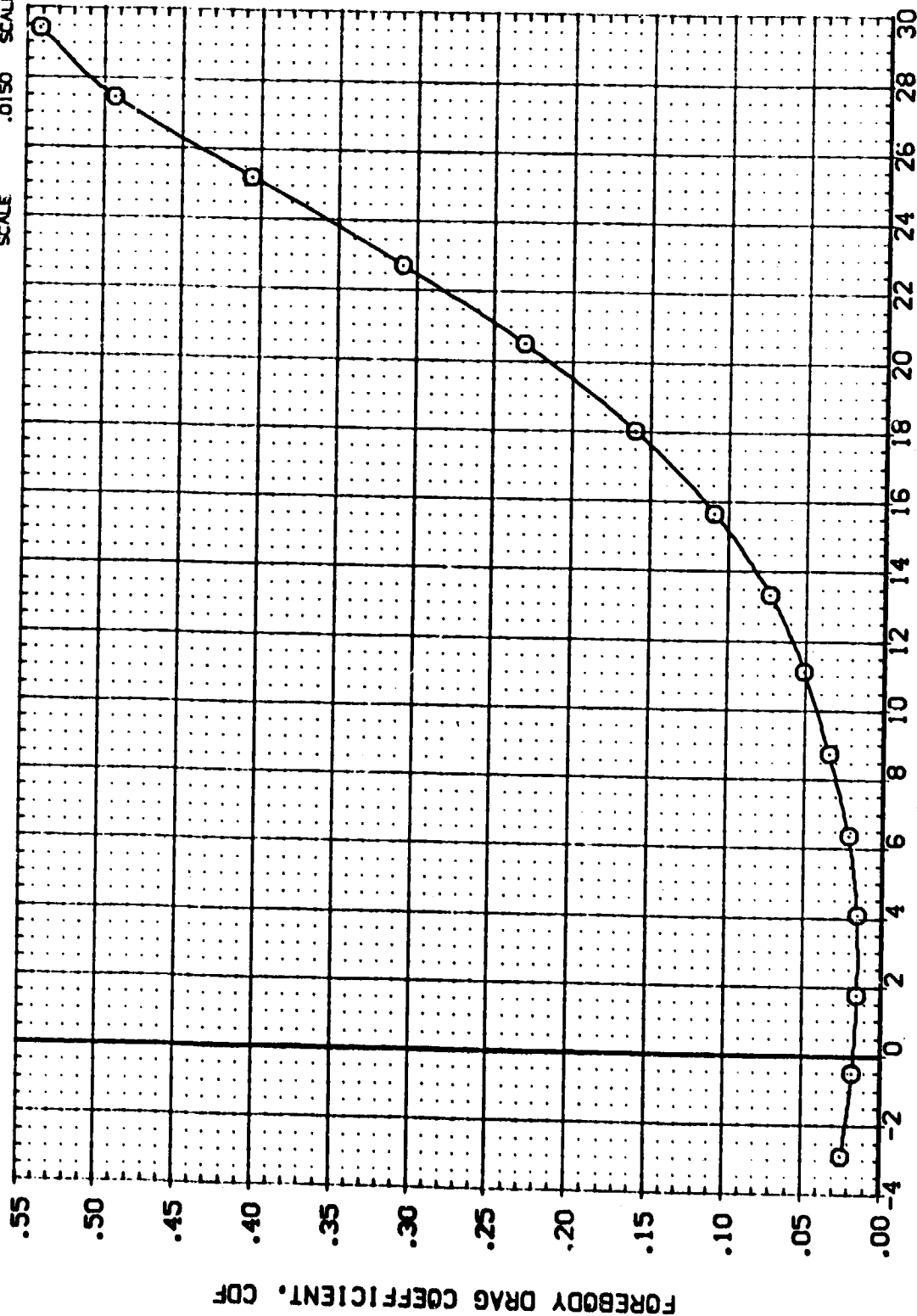


FIGURE 7 139B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 12.50

DATA SET SYMBOL (APPO02) (APPO08)

CONFIGURATION DESCRIPTION
 QAL7.L1PT138.098 3.(819C7F544)(V107E23)(V7R5)
 DATA NOT AVAILABLE

ELEVTR BOFLAP SPOBRK RUDDER

REFERENCE INFORMATION

SREF 87.1560 SO IN
 LREF 19.3545 INCHES
 BREF 14.0502 INCHES
 YMRP 12.5770 INCHES
 ZMRP 6.0000 INCHES
 SCALE .0150

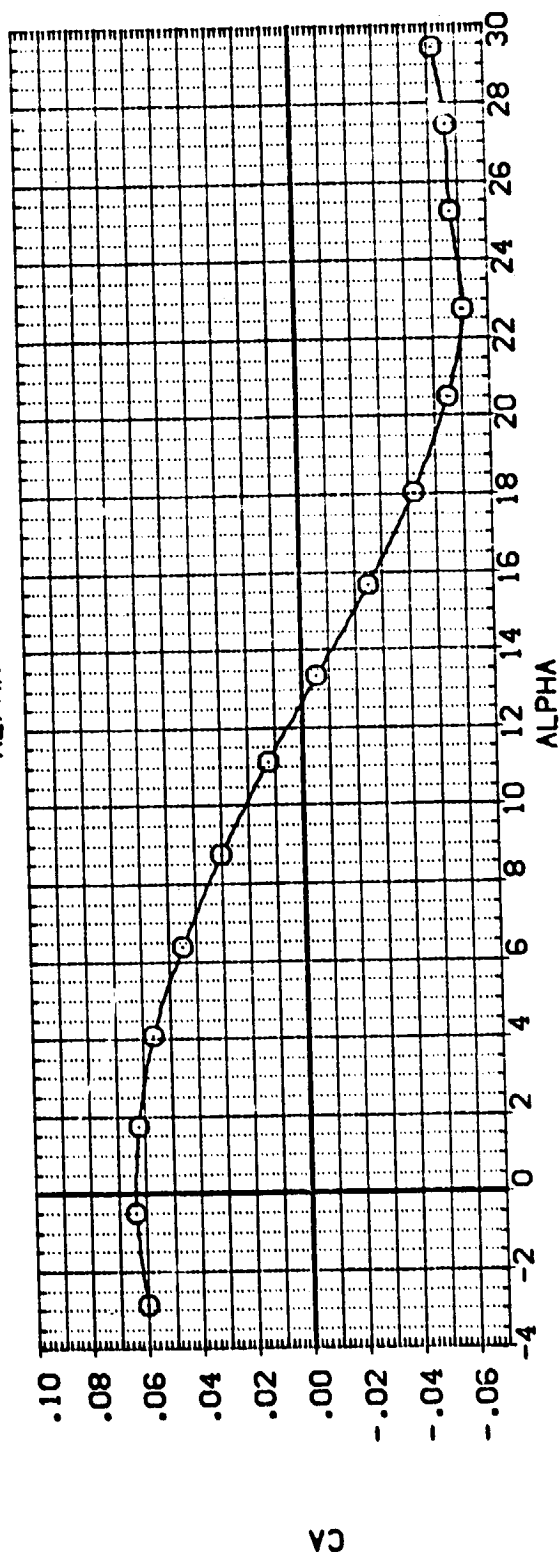
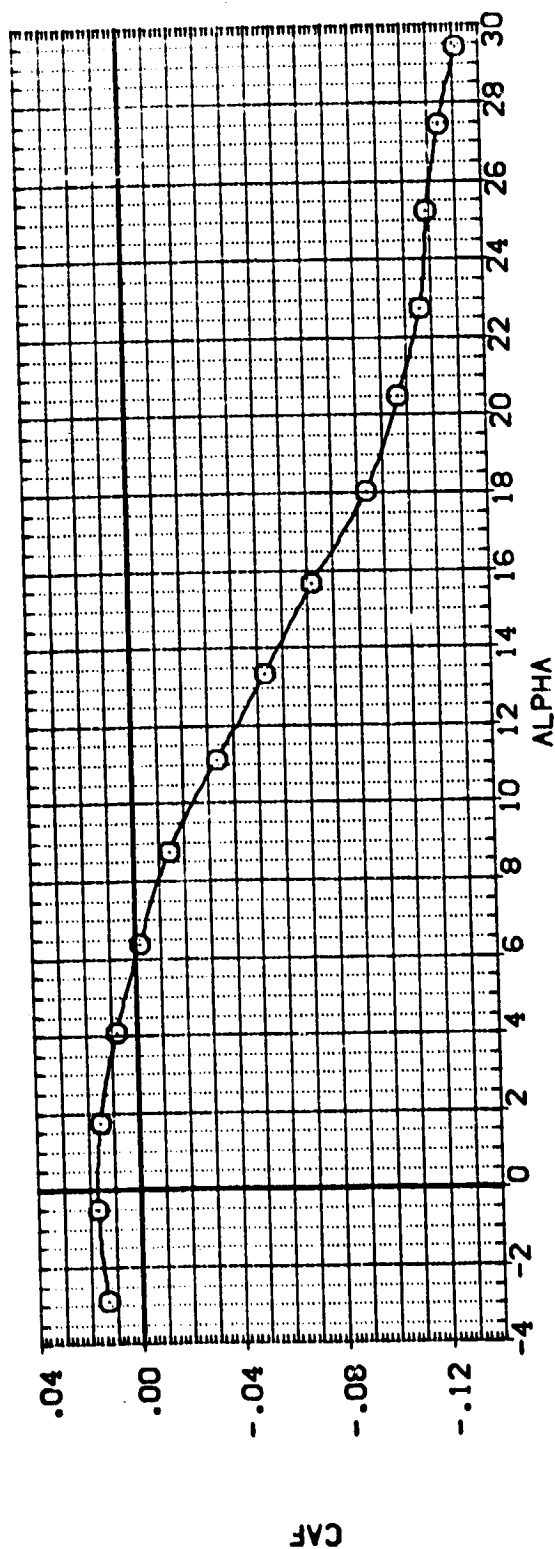


FIGURE 7 139B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 12.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BDFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION	
(APPO02)	0117.LTPT139.ORB 3.(B1SC7F5M4)(V107E23)(V7R5)	.000	-14.250	24.920	.000	SREF	87.1560
(APPO08)	DATA NOT AVAILABLE	.000	-14.250	54.920	.000	LREF	19.3545
						BREF	14.0502
						XMRP	12.5770
						YMRP	.0000
						ZMRP	.0000
						SCALE	.0150
							INCHES
							INCHES
							INCHES
							SCALE

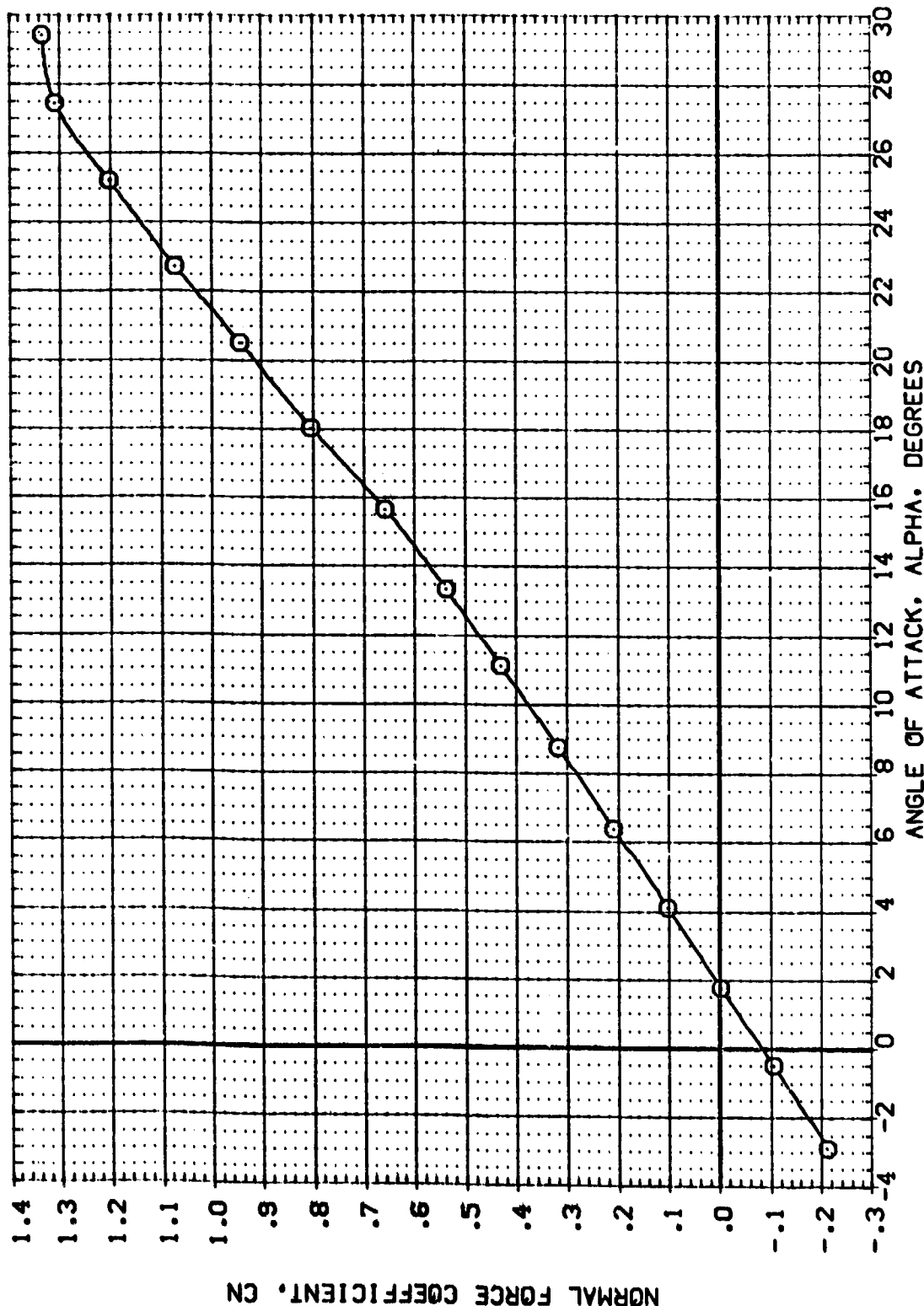


FIGURE 7 139B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 12.50



DATA SET SYMBOL: 9
 (APR002)
 (APR003)

CONFIGURATION DESCRIPTION:
 0A17.LTPT138.DPB 3.(B19C7F5M4)(V107E23)(V7R5)
 DATA NOT AVAILABLE

ELEVTR BDFLAP SPDBRK RUDDER
 .000 -14.250 24.920 .000
 .000 -14.250 54.920 .000

REFERENCE INFORMATION
 SREF 87.1550 50. IN.
 LREF 19.3545 INCHES
 BREF 14.0502 INCHES
 YMRP 12.5770 INCHES
 YMRP 6.0000 INCHES
 ZMRP 6.0000 INCHES
 SCALE .0150 SCALE

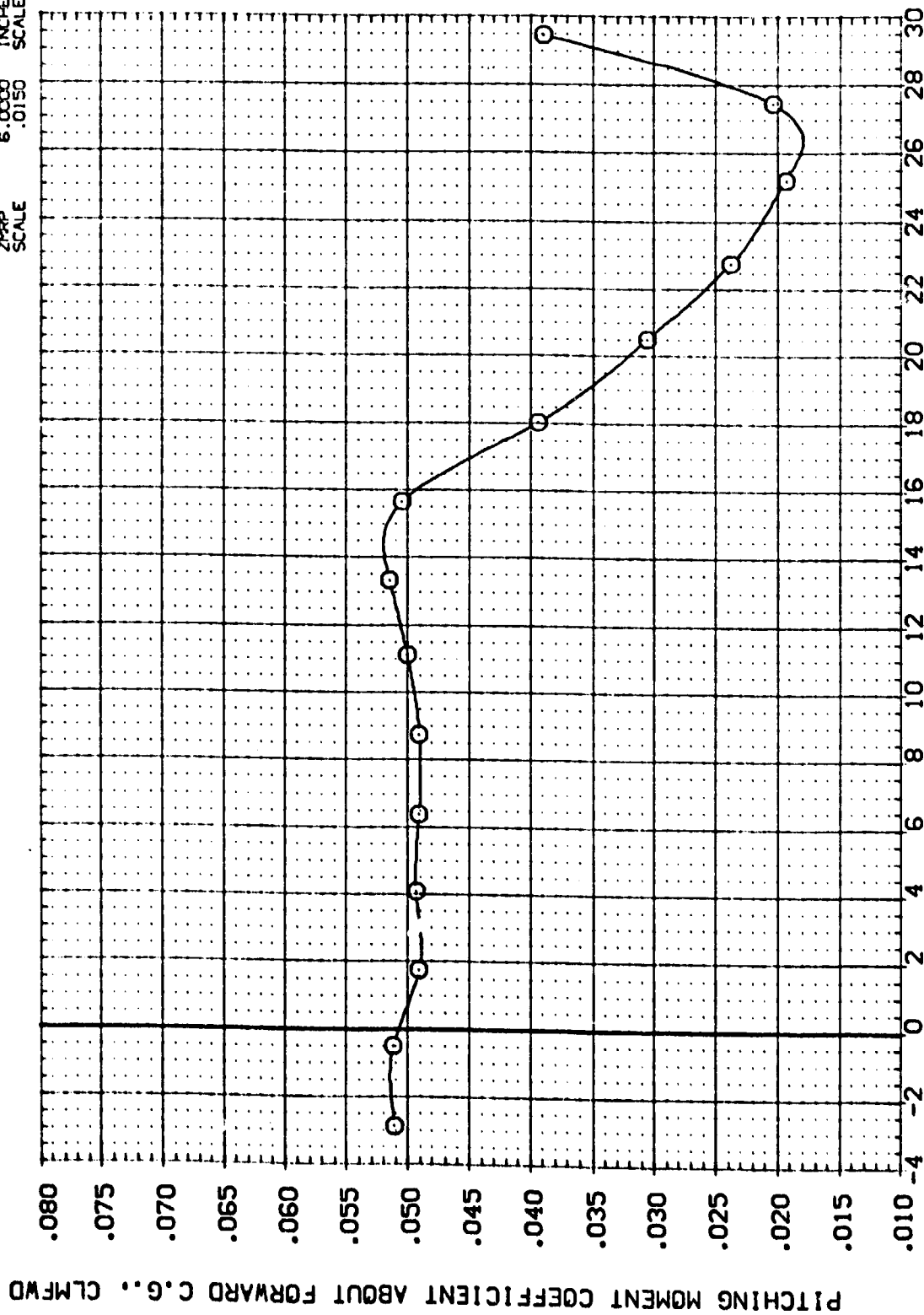


FIGURE 7 1398 ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 12.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APPO02)	0A17-LTPT139,088 3.(B19C7F5H4)(V107E23)(V7R5)	.000	-14.250	24.920	.000	SREF 87.1560 SQ. IN.
(APPO03)	DATA NOT AVAILABLE	.000	-14.250	54.920	.000	LREF 19.3545 INCHES
						BREF 14.0502 INCHES
						XPRP 12.5770 INCHES
						YPRP .0000 INCHES
						ZPRP 6.0000 INCHES
						SCALE .0150

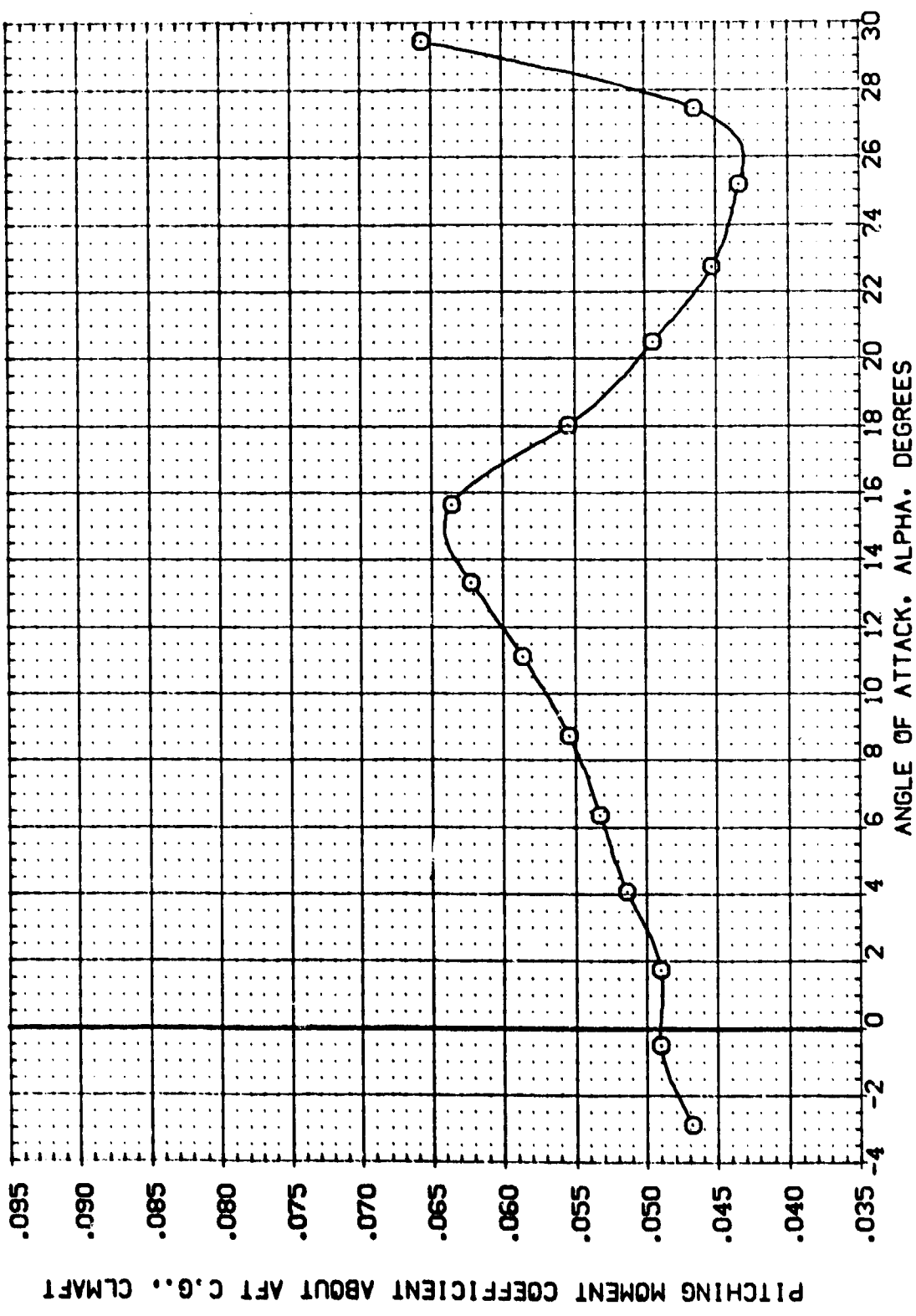


FIGURE 7 139B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 12.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPDBRK	RUDDER	REFERENCE INFORMATION
(APPC22)	DA17-ALTPT138-098 3-(819C7F5M4)(V10TE231)(V7R5)	.000	-14.250	24.920	.000	SREF 87.1560 50. IN.
(APPC08)	DATA NOT AVAILABLE	.000	-14.250	54.920	.000	LREF 19.3545 INCHES
						BREF 14.0502 INCHES
						YMRP 12.5770 INCHES
						ZMRP 6.0000 INCHES
						SCALE .0150 SCALE

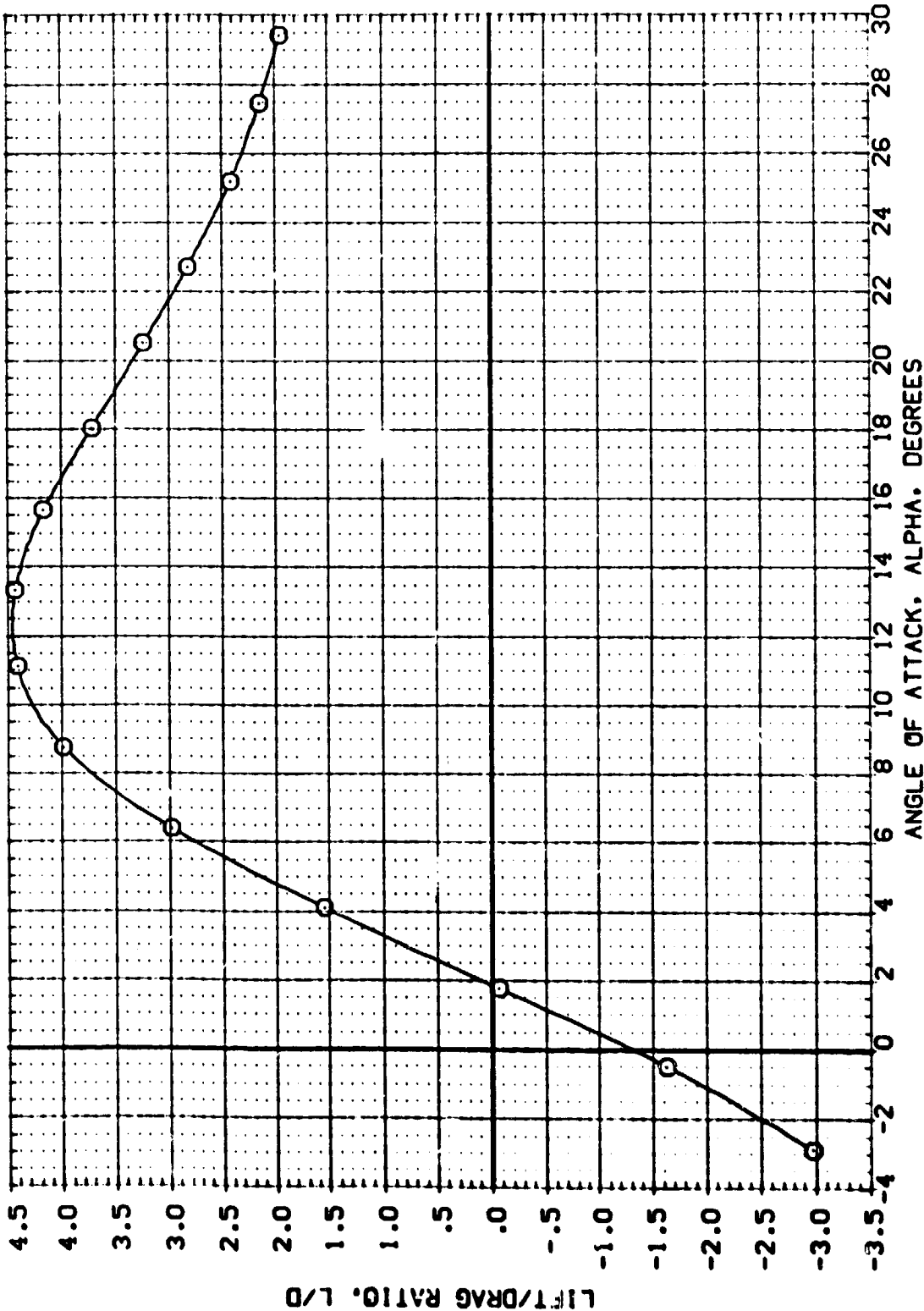


FIGURE 7 1398 ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 12.50

DATA SET SYMBOL: 8
 CONFIGURATION DESCRIPTION: 3N
 DA17.11PT136-098 3-(BISC/FSM)(V107E23)(V7R5)
 DATA NOT AVAILABLE

REFERENCE INFORMATION	
SREF	87.1560 SO. IN.
LREF	19.3545 INCHES
BREF	14.0502 INCHES
XMRP	12.5770 INCHES
YMRP	.0000 INCHES
ZMRP	6.0000 INCHES
SCALE	.0150 SCALE

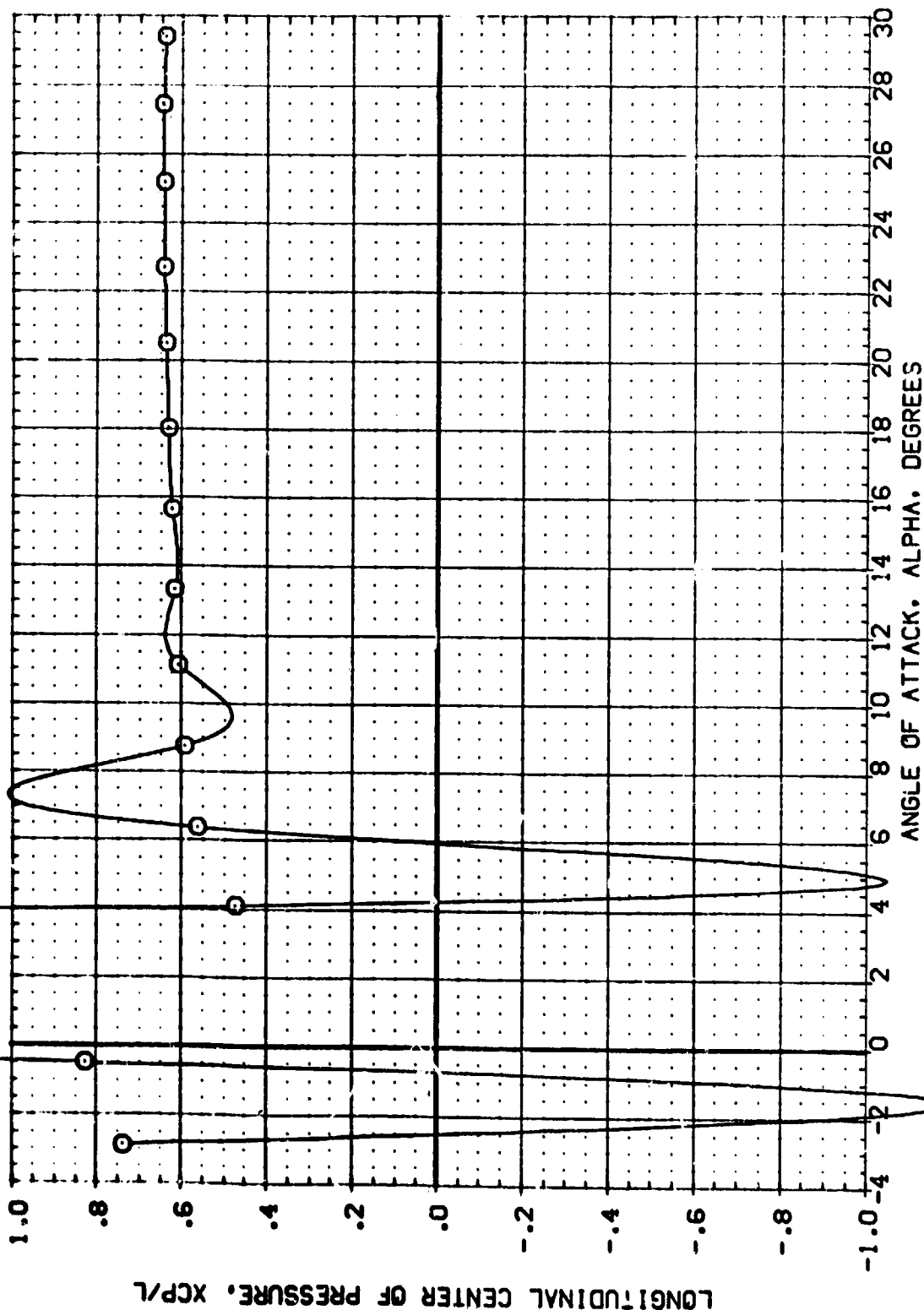


FIGURE 7 139B ORBITER SPEED BRAKE DEFLECTION EFFECTS

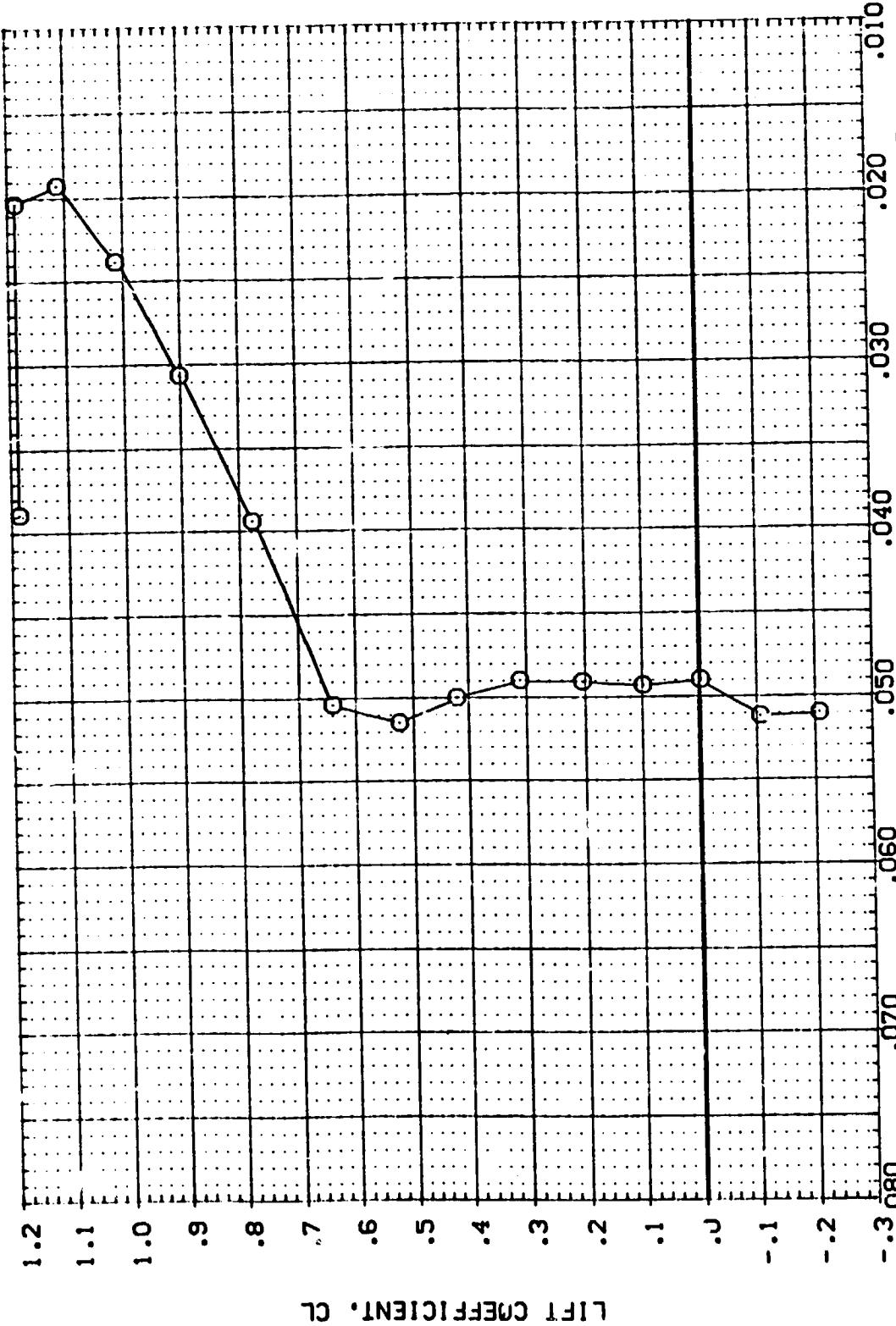
(A)RN/L = 12.50

DATA SET SYMBOL
(APPO2)
(APPO8)

CONFIGURATION DESCRIPTION
DA17-LTPT138.0RB 3.(B19C7F5M4)(V107E23)(V7R5)
DATA NOT AVAILABLE

ELEVTR BDFLAP SPOBRK RUDDER
.000 -14.250 24.920 .000
.000 -14.250 54.920 .000

REFERENCE INFORMATIC
SREF 87.1560 SQ. IN.
LREF 19.3545 INCHES
BREF 14.0502 INCHES
XMRP 12.5776 INCHES
YMRP 6.0000 INCHES
ZMRP 6.0000 INCHES
SCALE .0150



PITCHING MOMENT COEFFICIENT ABOUT FORWARD C.G., CLMFWD

FIGURE 7 139B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 12.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APPO02)	DA17.L1PT139.098 3.(819C7FSM4)(V107E23)(V7RS)	.000	-14.250	24.920	.000	SREF 97.1560 50. IN
(APPO08)	DATA NOT AVAILABLE	.000	-14.250	54.920	.000	LREF 19.9345 INCHES
						BREF 4.0502 INCHES
						XMRP 2.5770 INCHES
						YMRP .0000 INCHES
						ZMRP 6.0000 INCHES
						SCALE .0150

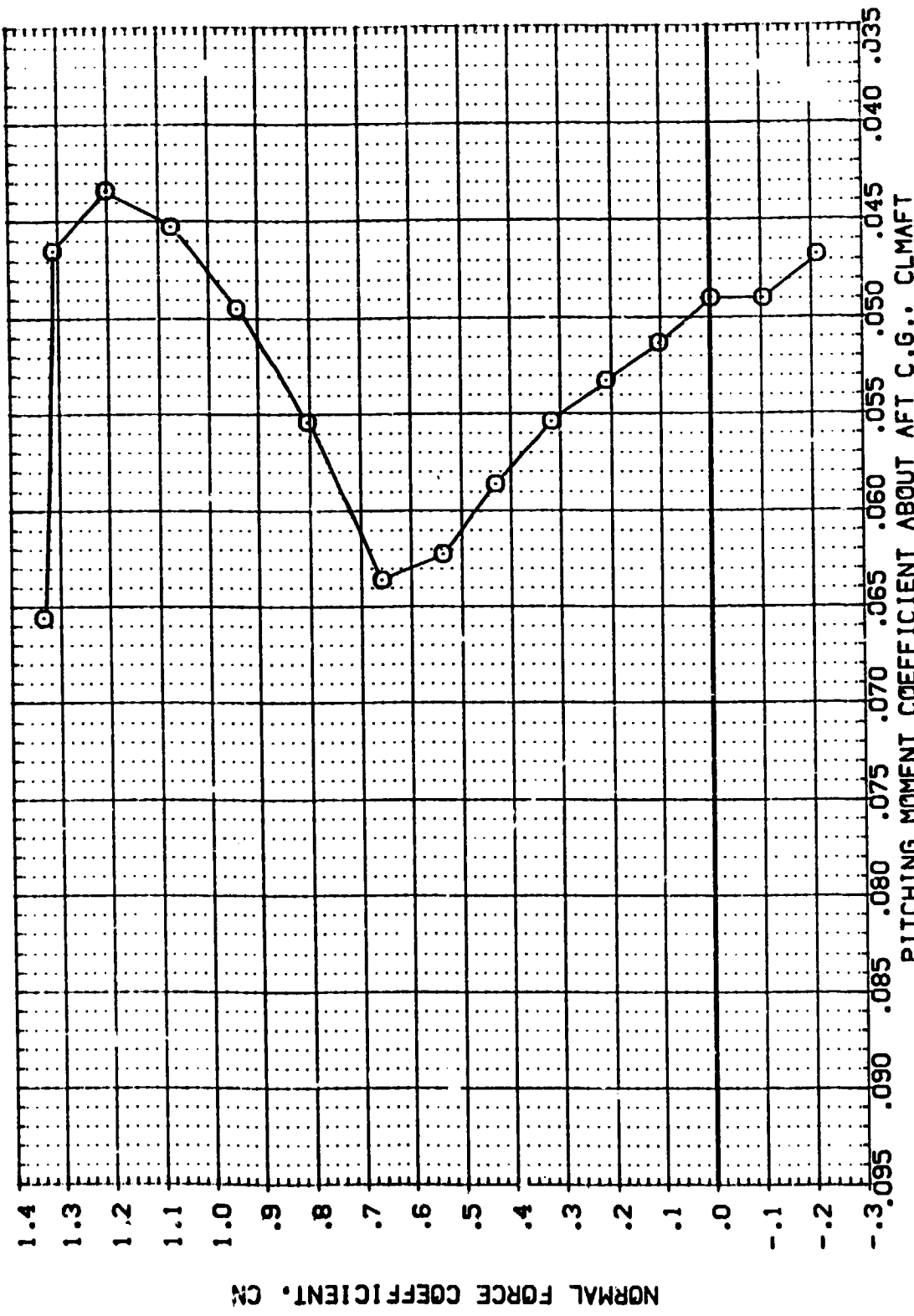


FIGURE 7 139B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A) RN/L = 12.50



DATA SET SYMBOL: CA17, LTP138, OR8 3. (B19C7F5M4) (V107E23) (V7R5)
(AP002) DATA NOT AVAILABLE
(AP008)

ELEVTR BOFLAP SPOBRK RUDDER
.000 -14.250 24.920
.000 -14.250 54.920

REFERENCE INFORMATION
SREF 87.1560 50. IN
LREF 19.3545 INCHES
BREF 14.0502 INCHES
XMRP 12.5770 INCHES
YMRP .0000 INCHES
ZMRP 6.0000 INCHES
SCALE .0150 SCALE

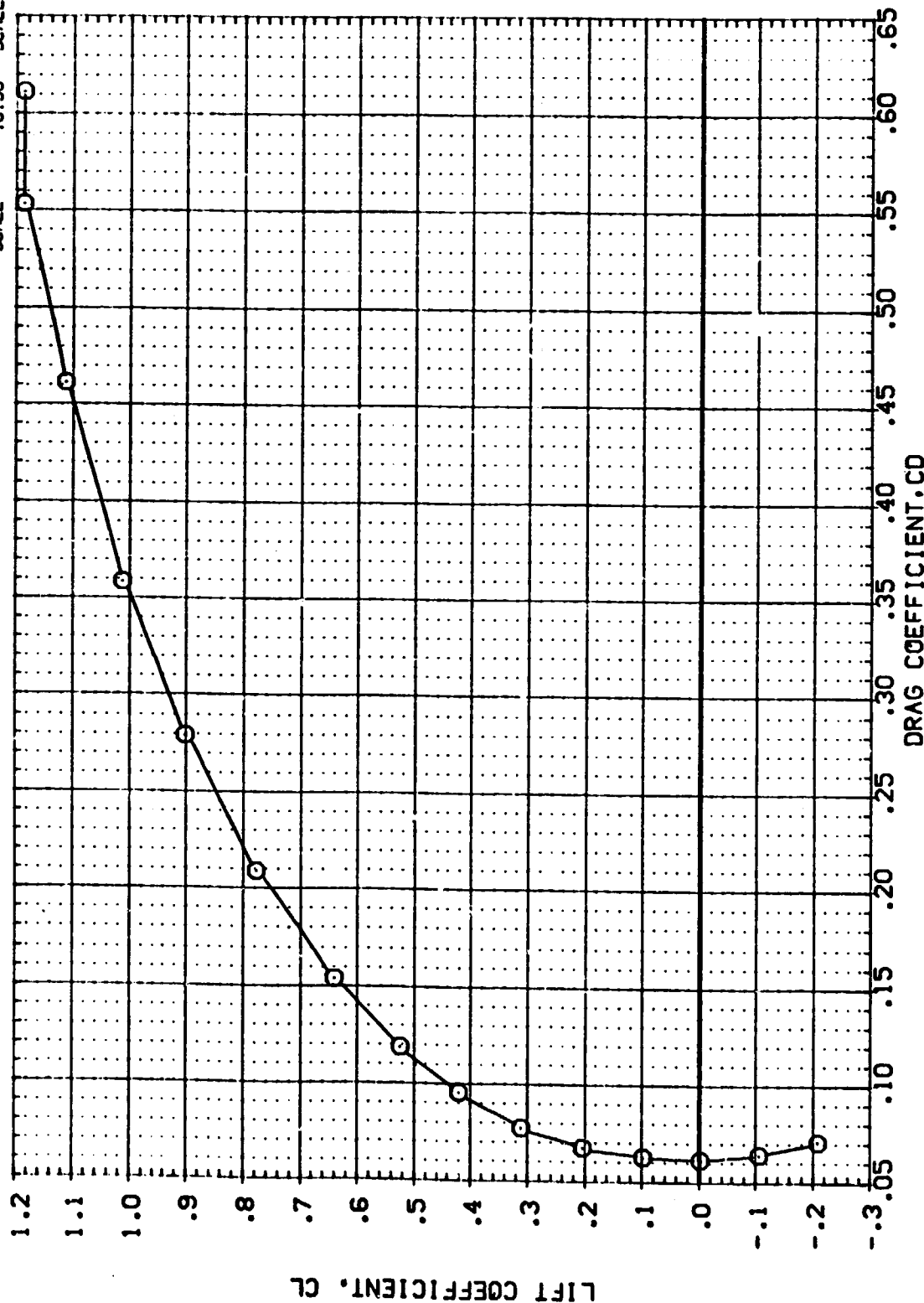


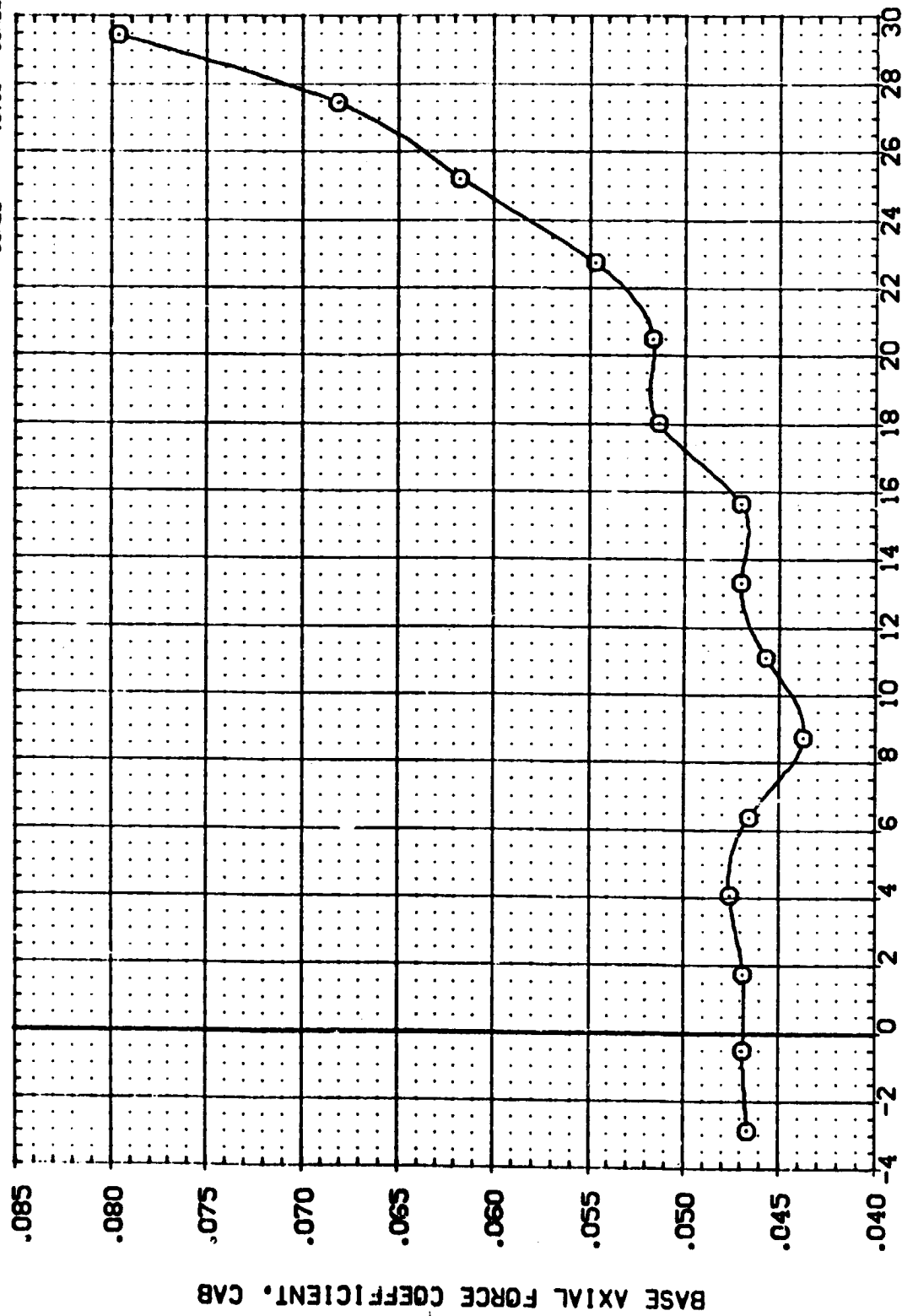
FIGURE 7 139B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A) RN/L = 12.50

DATA SET SYMBOL: 8
 CONFIGURATION: DESCRIPTION
 0A17ALPT138-058 3-(819C7F944)(V107E23)(V7R5)
 DATA NOT AVAILABLE

ELEVTR .000
 BOFLAP -14.250
 SPDBRK 24.920
 RUDDER .000

REFERENCE INFORMATION
 SREF 87.1560 INCHES
 LREF 19.7541 INCHES
 GREF 14.0502 INCHES
 XMRP 12.5770 INCHES
 YMRP .0000 INCHES
 ZMRP 6.0000 INCHES
 SCALE .0150



ANGLE OF ATTACK, ALPHA, DEGREES

FIGURE 7 1398 ORBITER SPEED BRAKE DEFLECTION EFFECTS

(AJRN/L = 12.50

DATA SET SYMBOL: 017.LTPT138.098 3.(819C7F5M4)(V107E23)(V7R5)

CONFIGURATION DESCRIPTION: 017.LTPT138.098 3.(819C7F5M4)(V107E23)(V7R5)

DSRBRK: 30.000

RUDER: .000

ELEVON: .000

BOFLAP: -14.250

REFERENCE INFORMATION:

SRF	87.1560	SO.IN:
LRFF	19.3545	INCHES
BRFF	14.0502	INCHES
VRFF	12.5770	INCHES
VRFF	6.0000	INCHES
VRFF	6.0000	INCHES
SCALE	.0150	SCALE

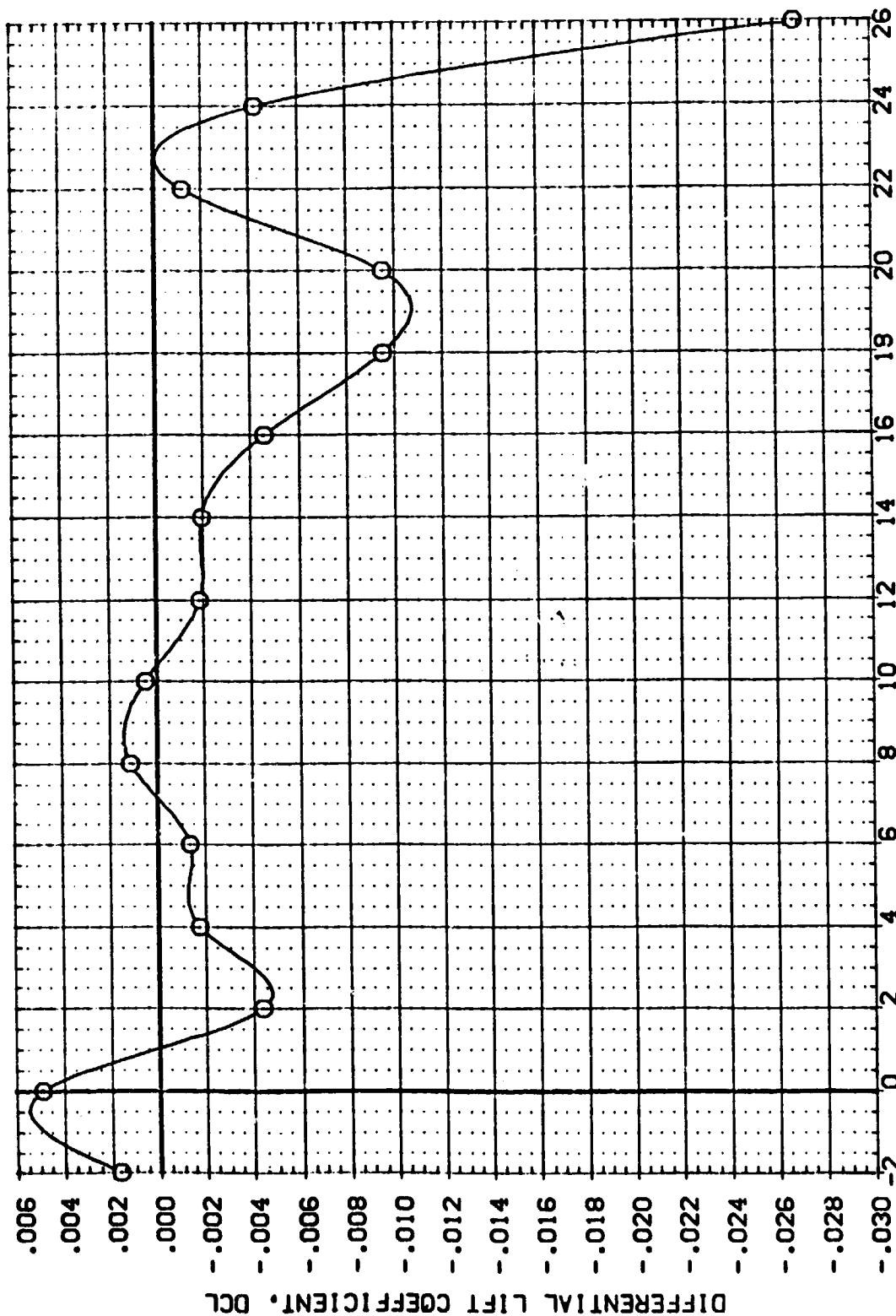


FIGURE 8 139B ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(AJRN/L = 4.70

DATA SET SYMBOL: 017.LTPT139.088 3.(819C7F5M411W10TE23)(V7R5)

CONFIGURATION DESCRIPTION: 30.000 0.000 -14.250

REFERENCE INFORMATION:

REF	INCHES	SCALE
SREF	87.1560	50. IN.
LREF	19.3545	INCHES
BREF	14.0502	INCHES
XREF	12.5770	INCHES
YREF	6.0000	INCHES
ZREF	6.0000	INCHES
SCALE	.0150	SCALE

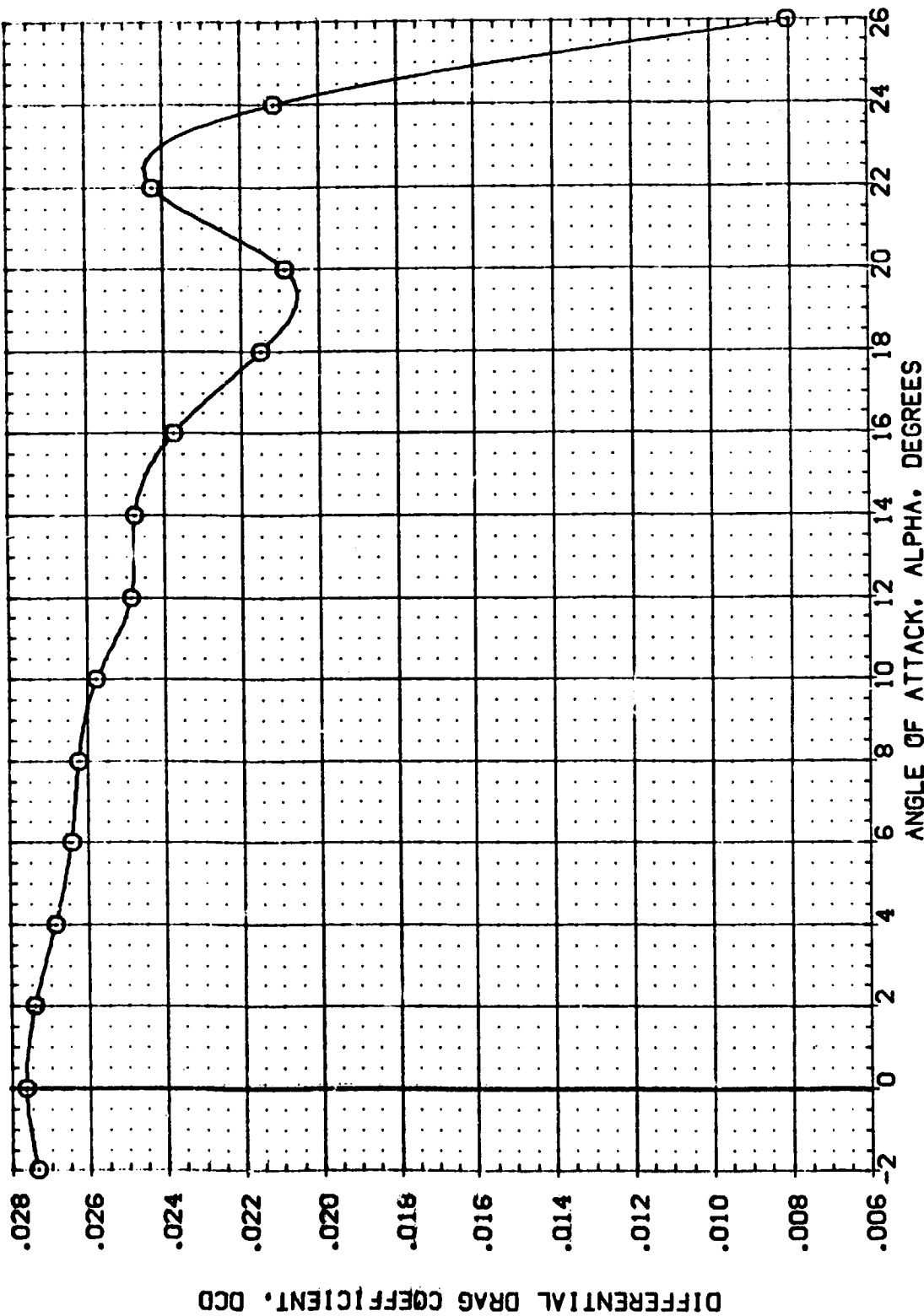
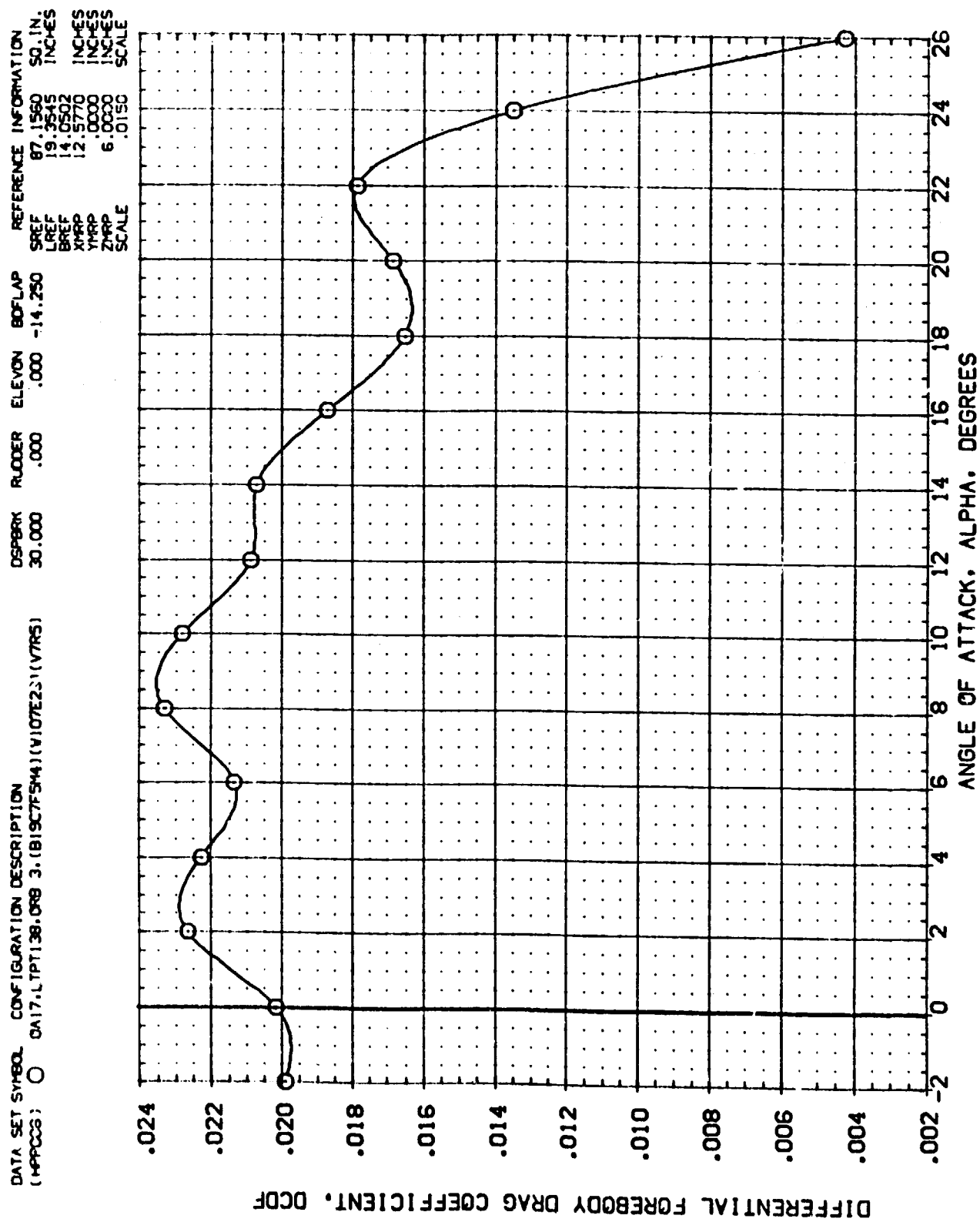


FIGURE 8 139B ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 4.70



DATA SET SYMBOL: 017.LTP/138.098 3.(819C7F5M4)(V107E23)(V7R5)

CONFIGURATION DESCRIPTION: 017.LTP/138.098 3.(819C7F5M4)(V107E23)(V7R5)

REFERENCE INFORMATION:

PARAMETER	VALUE	UNIT
SREF	87.1560	SO. IN.
LREF	19.3545	INCHES
BREF	14.0502	INCHES
XMRP	12.5770	INCHES
YMRP	.0000	INCHES
ZMRP	6.0000	INCHES
SCALE	.0150	SCALE

OSPRK: 30.000

RUDDER: .000

ELEVON: .000

8°FLAP: -14.250

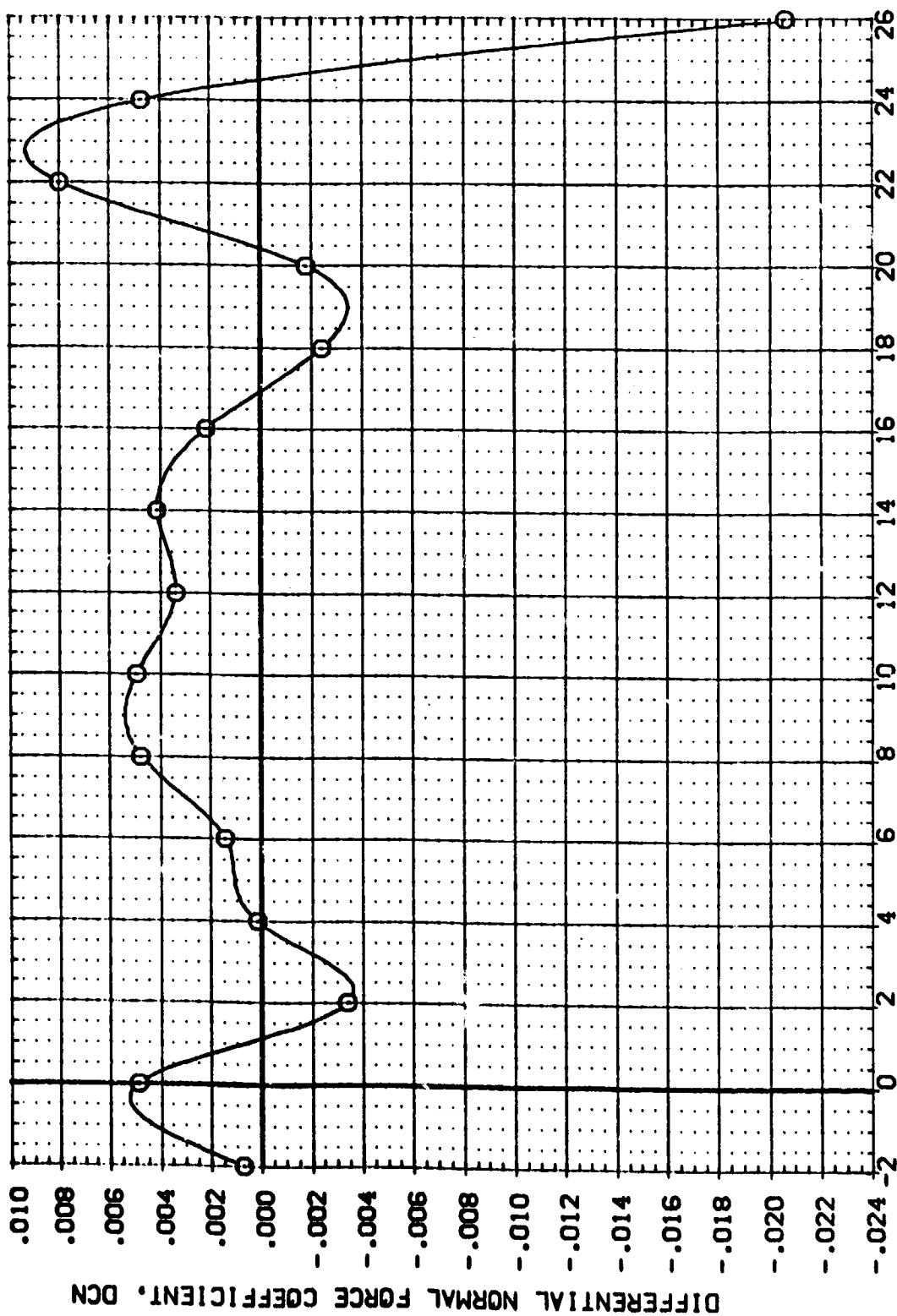


FIGURE 8 139B ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(AJRN/L = 4.70

DATA SET SYMBOL: (490008) ○

CONFIGURATION DESCRIPTION: CA17.1.TPT138.088 3. (B19C75M4)(V107E23)(V7R5)

OSPERK: 30.000

RUDER: .000

ELEVON: .000

BOFLAP: -14.250

REFERENCE INFORMATION:

SREF	87.1560	SO.IN:
LREF	19.3545	INCHES
BREF	14.0502	
XMRP	12.5770	INCHES
YMRP	.0000	INCHES
ZMRP	6.0000	INCHES
SCALE	.0150	SCALE

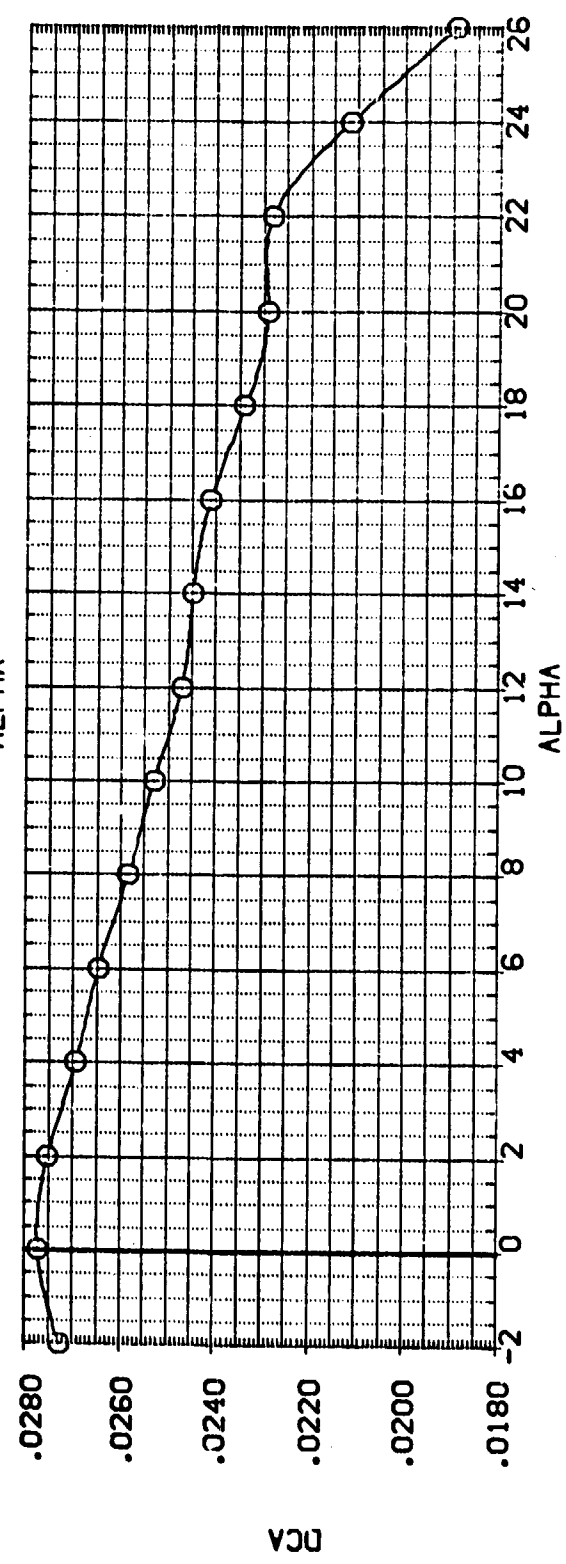
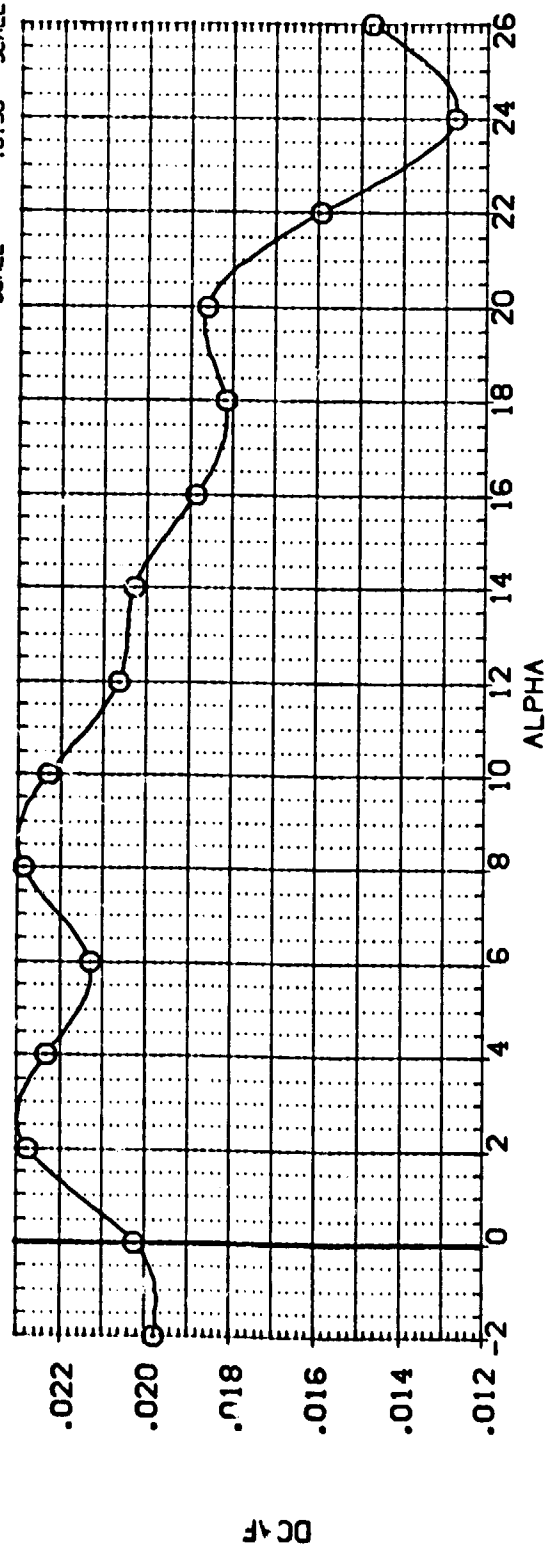


FIGURE 8 1398 ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL: 017.LTPT138.058 3.(B19C7F544)(V107E23)(V7R5)
 CONFIGURATION DESCRIPTION: 017.LTPT138.058 3.(B19C7F544)(V107E23)(V7R5)
 REFERENCE INFORMATION:
 SREF: 87.1550 SQ. IN.
 LREF: 19.3545 INCHES
 BREF: 14.0502 INCHES
 XPRP: 12.5770 INCHES
 YPRP: 6.0000 INCHES
 ZPRP: 6.0000 INCHES
 SCALE: .0150

DSPBRK: 30.000
 RUDDER: .000
 ELEVON: .000
 BOFLAP: -14.250

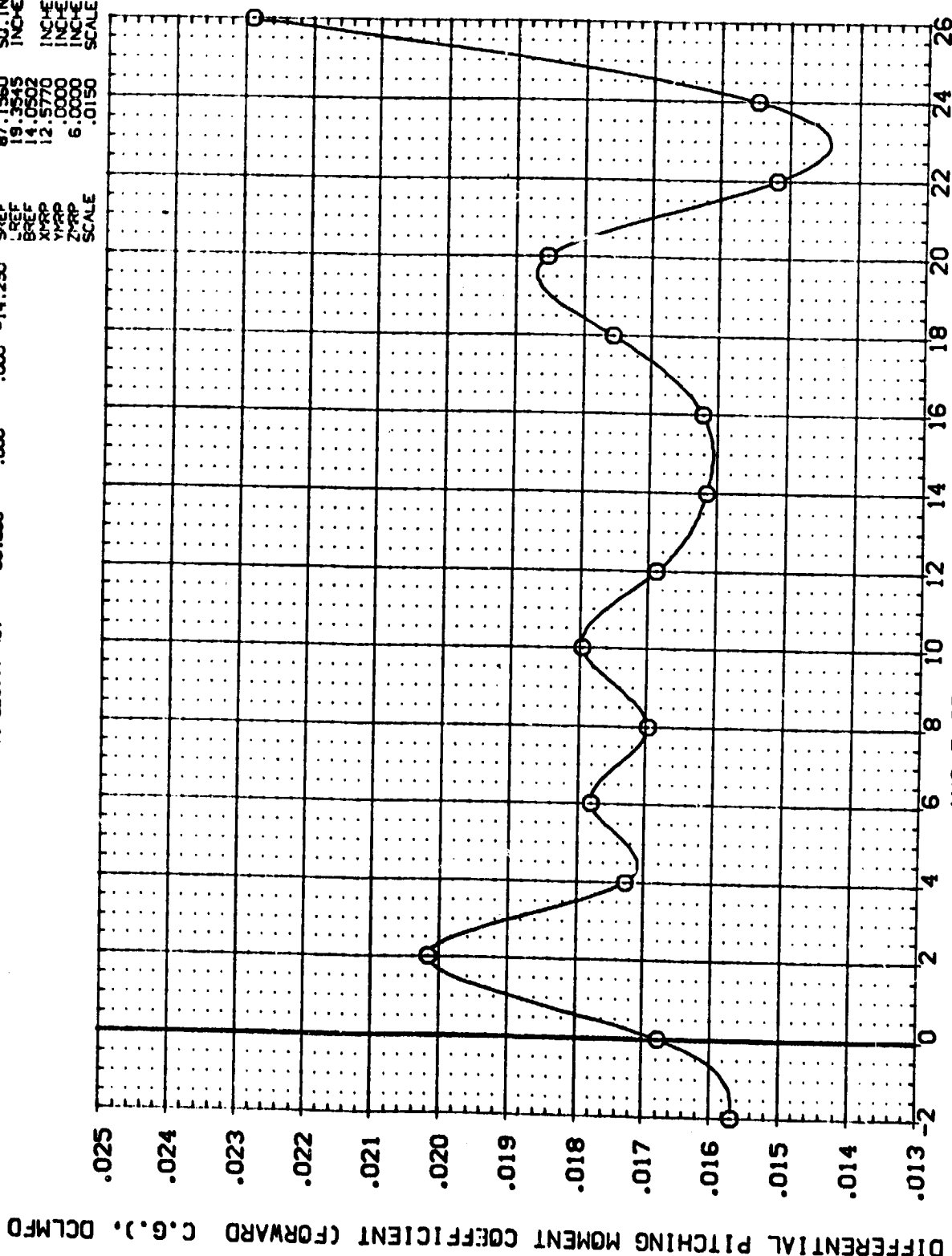


FIGURE 8 139B ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 4.70



DATA SET SYMBOL CONFIGURATION DESCRIPTION REFERENCE INFORMATION

(-PPO08)	Q	DA17.L1PT138.089 3.(B19C7F5M4)(V107E23)(V7R5)	DSFBRK	RUDER	ELEVON	BDFLAP	SREF	87.1560	SQ.IN.
			30.000	.000	.000	-14.250	LREF	19.2345	INCHES
							BREF	14.0502	
							XMRP	12.5770	INCHES
							YMRP	.0000	INCHES
							ZMRP	6.0000	INCHES
							SCALE	.0150	SCALE

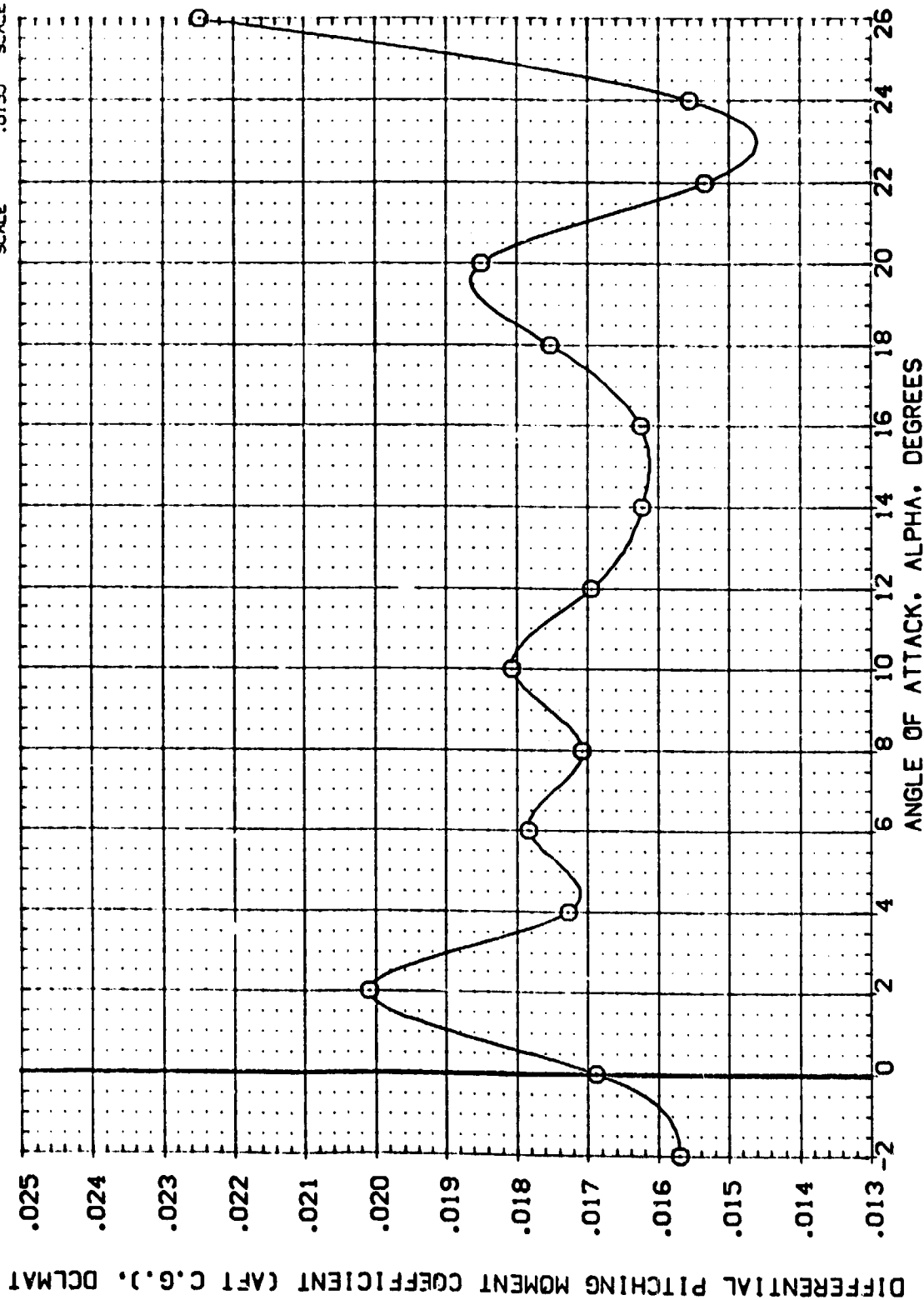


FIGURE 8 139B ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(AJRN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DISPBRK	RUDER	ELEVON	BOFLAP	REFERENCE INFORMATION
(FPP008)	CA17.LTPT138.CRB 3.(B19C7F5M4)(V107E23)(V7R5)	30.000	.000	.000	-14.250	SREF 87.1560 SC.IN.
						LREF 19.3545 INCHES
						BREF 4.0502 INCHES
						XREF 2.5770 INCHES
						YREF .0000 INCHES
						ZREF 6.0000 INCHES
						SCALE .0150

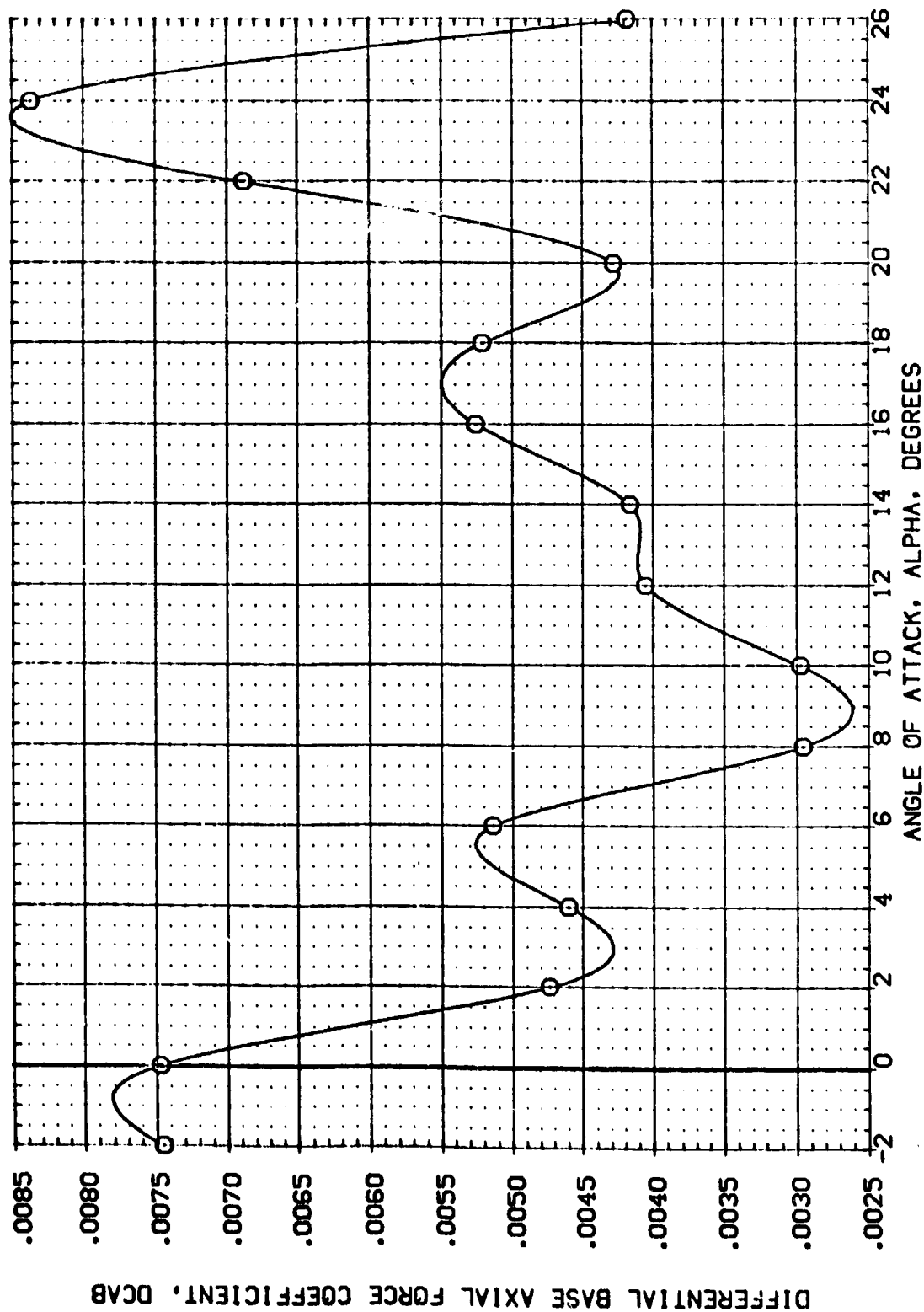


FIGURE 8 139B ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(M000008)	0017.LTPT138.ORB 3.(B19C7F5M4)(V107E23)(V7R5)

DSPBRK	RUDER	ELEVON	BOFLAP
30.000	.000	.000	-14.250

REFERENCE INFORMATION	
SREF	87.1560 SO.IN.
LREF	19.3545 INCHES
BREF	14.0502 INCHES
XMRP	12.5770 INCHES
YMRP	6.0000 INCHES
ZMRP	6.0000 INCHES
SCALE	.0150 SCALE

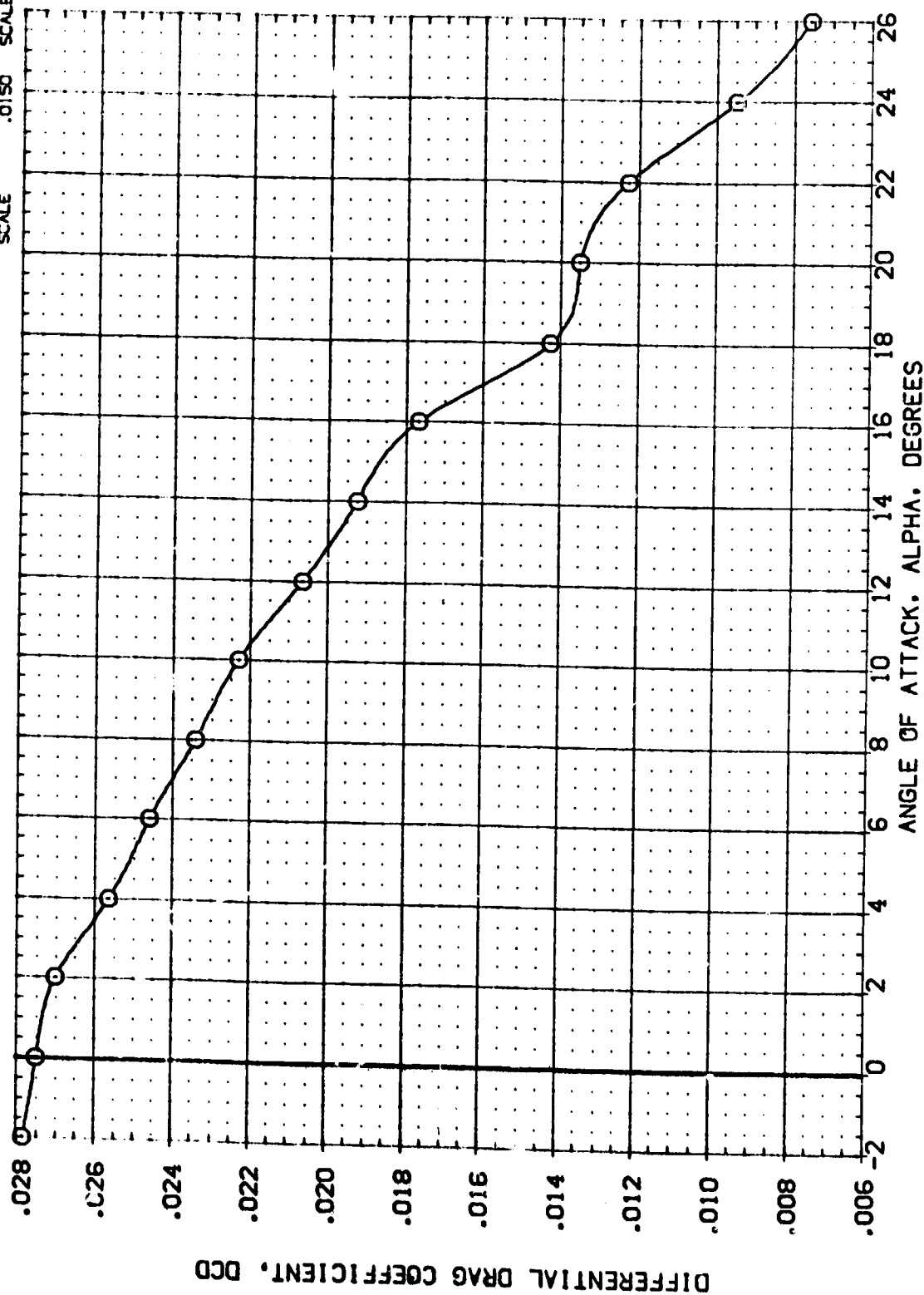


FIGURE 8 1398 ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

$$(A)RN/L = 10.00$$



C-5

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(HPP008) ○ CA17.L1PT138.008 3.181927FSM)(V107E23)(V7R5)

DSFBK RUDDER ELEVON BDFLAP
30.000 .000 .000 -14.250

REFERENCE INFORMATION
SREF 87.1560 SQ.IN.
LREF 19.3545 INCHES
BREF 14.0522 INCHES
XTRP 12.5770 INCHES
YTRP .0000 INCHES
ZTRP 6.0000 INCHES
SCALE .0150 SCALE

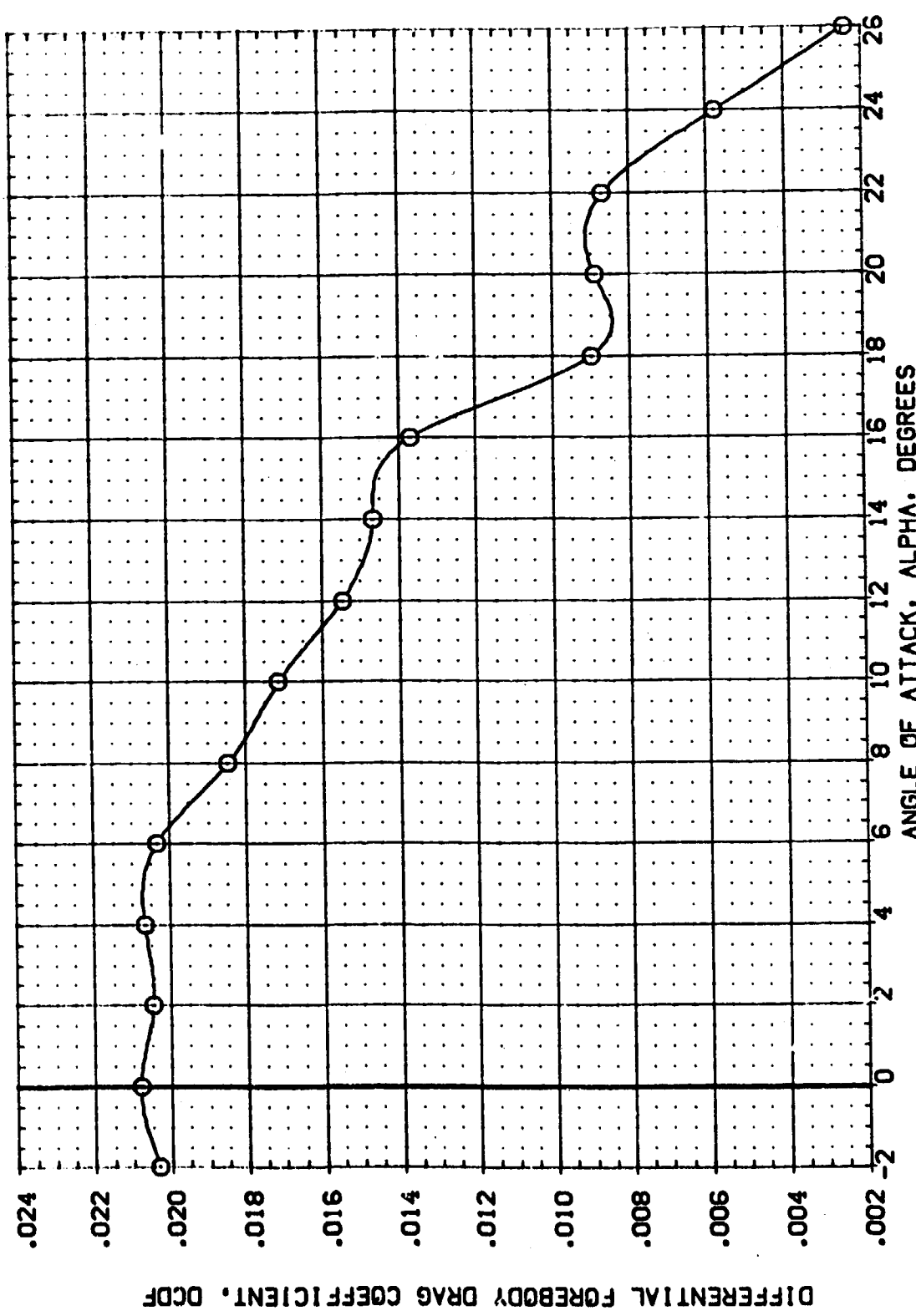


FIGURE 8 139B ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(HFP008)	○ CA17.LTPT138.ORG 3.(B19C7F94

CONFIGURATION DESCRIPTION
QA17.LTPT138.ORB 3.(B19C7F5M4)(V107E23)(V7R5)

OSPREY	RUDDER	ELEVON	BOFLAP
30.000	.000	.000	-14.250

REFERENCE INFORMATION	
SREF	87.1560 50. IN.
LREF	19.3545 INCHES
GREF	14.0502 INCHES
XPREF	12.5770 INCHES
YMPREF	.0000 INCHES
ZMPREF	6.0000 INCHES
SCALE	.0150 SCALE

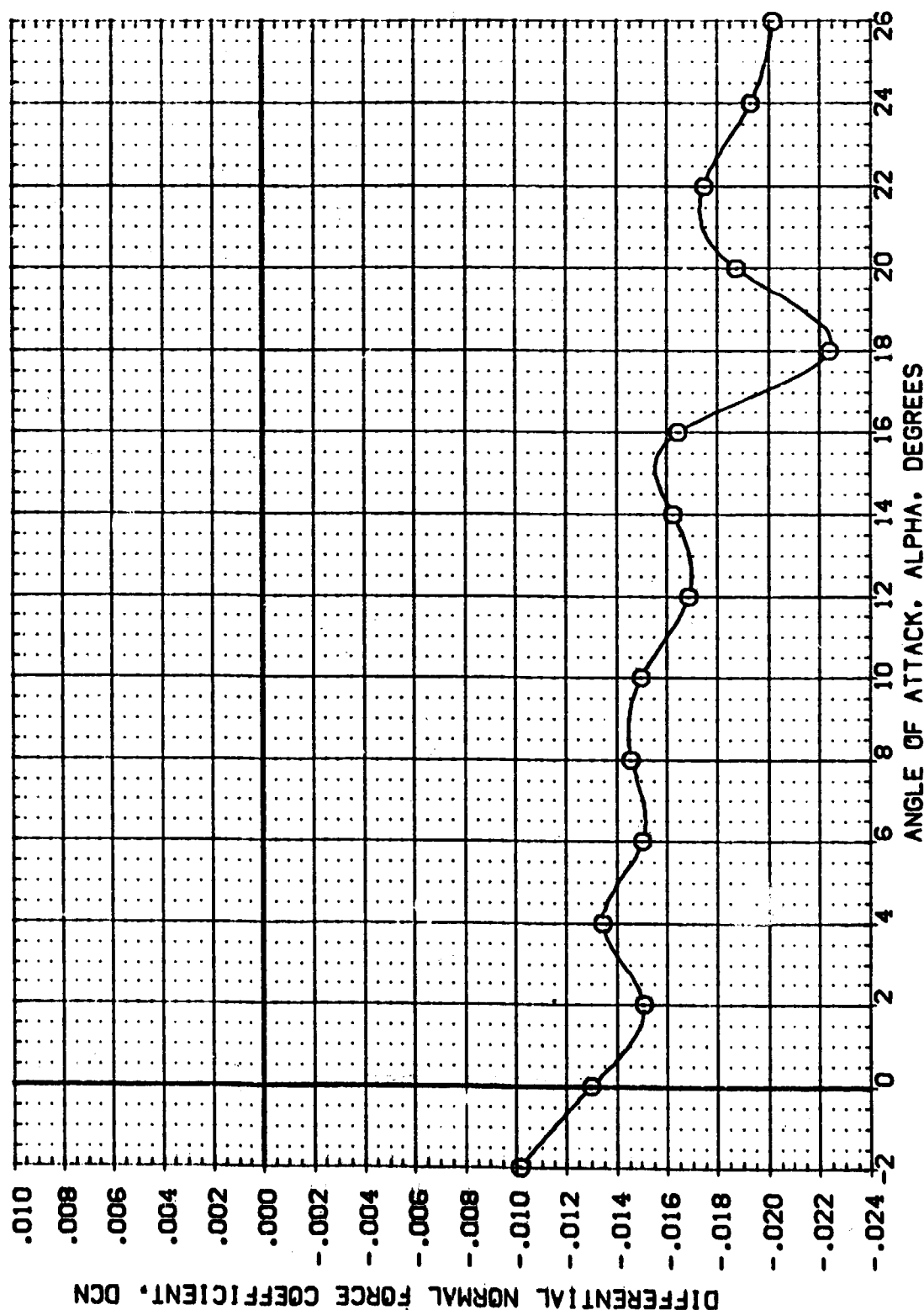


FIGURE -8 1398 ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL (14P008) ○ DATA SET SYMBOL (14P008) ○

CONFIGURATION DESCRIPTION
 DA17.LTPT138.DRB 3.(B1SC7FSM4)(V107E23)(V7R5)

DISPBRK 30.000

RUDDER .000

ELEVON .000

BDFLAP -14.250

REFERENCE INFORMATION

SREF	87.1560	50.1N
LREF	19.3545	INCHES
BREF	14.0502	INCHES
VRFP	12.5770	INCHES
VRFP	.0000	INCHES
ZRFP	6.0000	INCHES
SCALE	.0150	SCALE

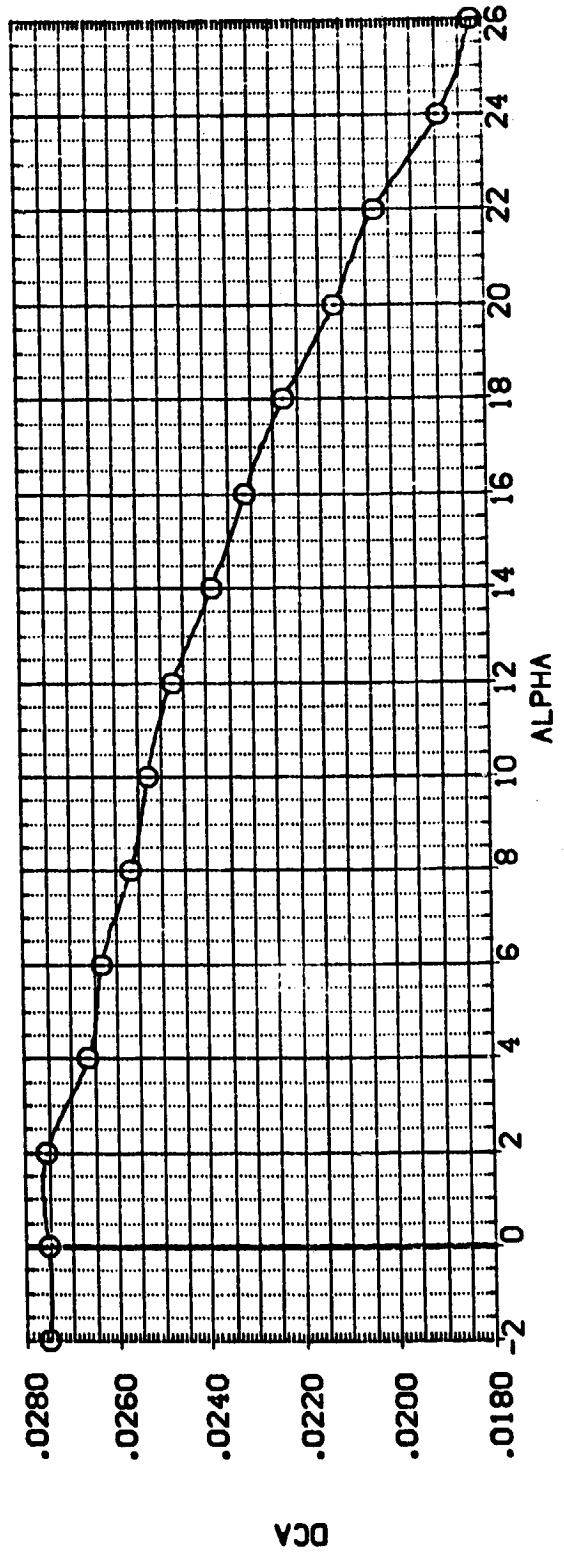
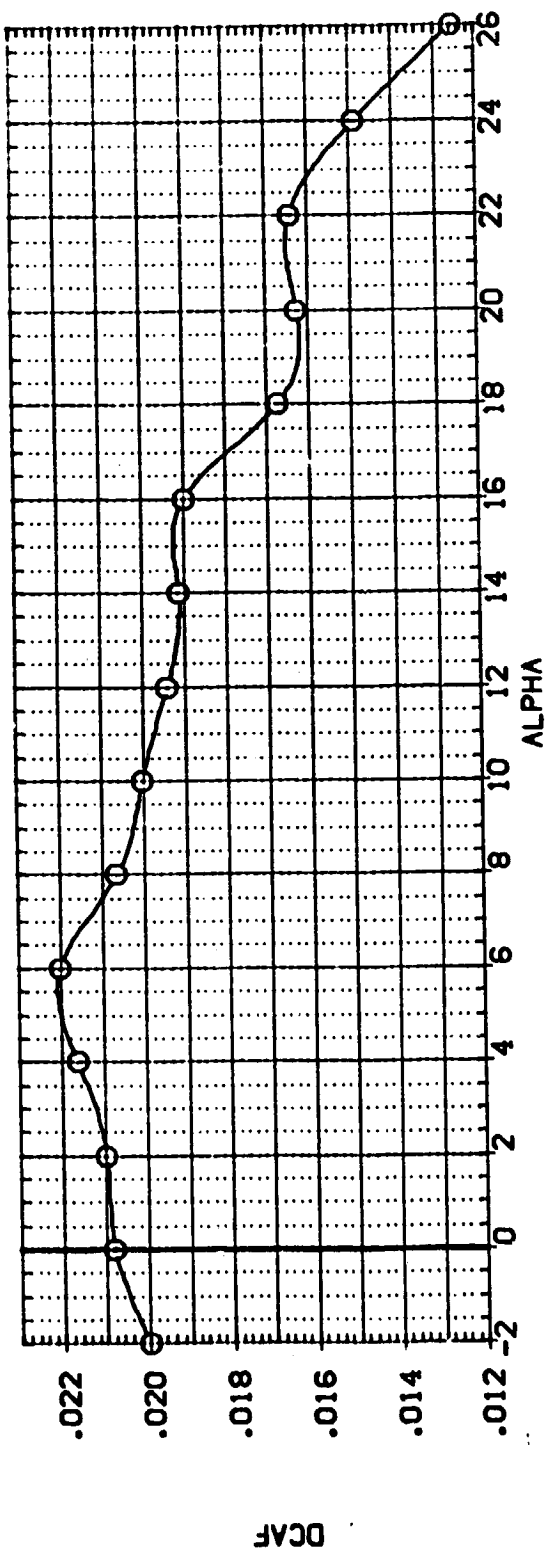


FIGURE 8 139B ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL: 0017.LTPT138.098 3.(B19C7FSM4)(V107E23)(V7R5)

DSBARK RUDDER ELEVON BOTLAP

REFERENCE INFORMATION
 SREF 87.1560 SQ.IN.
 LREF 19.3545 INCHES
 BREF 14.0502 INCHES
 XREF 12.5770 INCHES
 YREF .0000 INCHES
 ZREF 6.0000 INCHES
 SCALE .0150

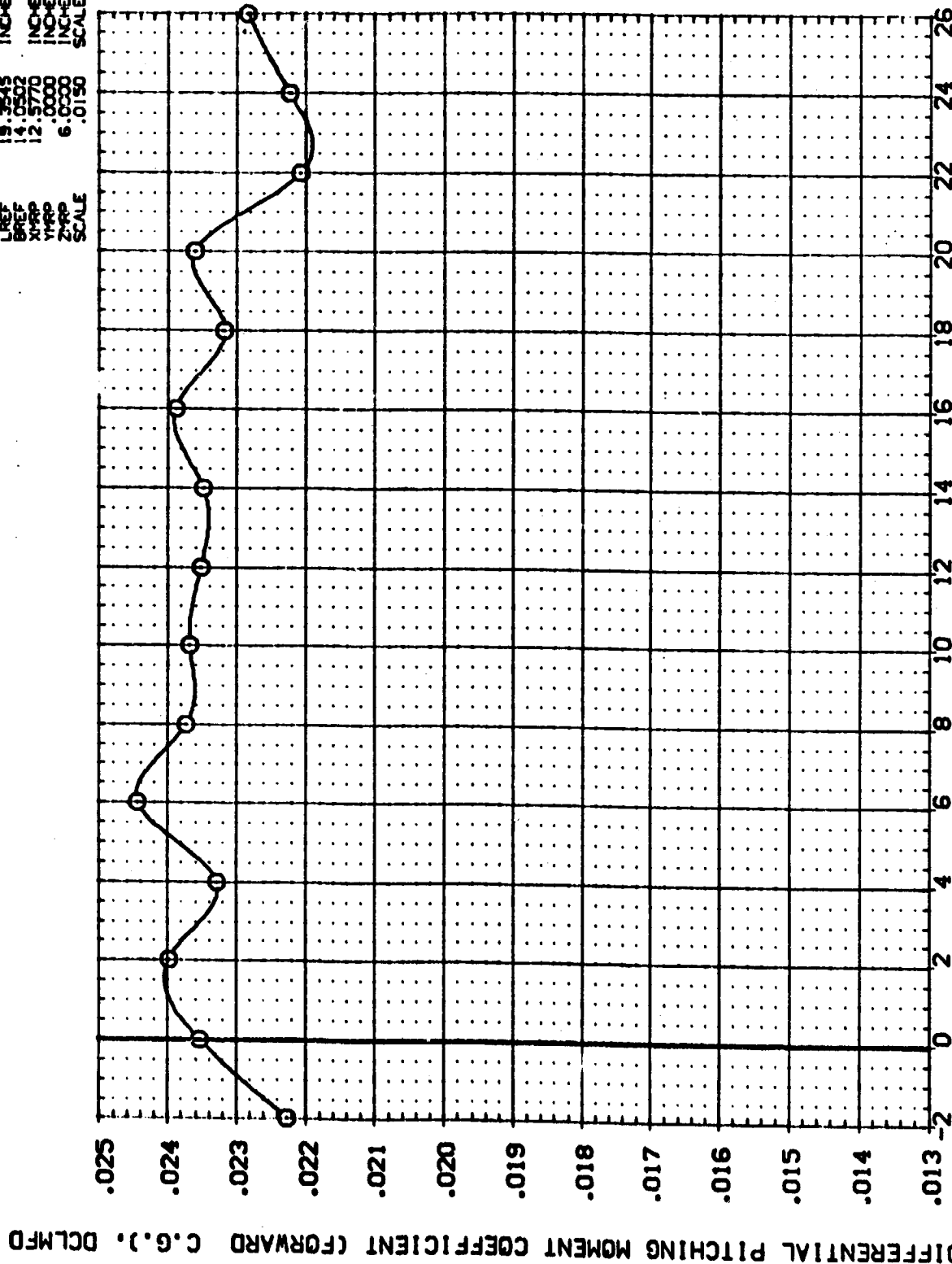


FIGURE 8 139B ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 10.00



DATA SET SYMBOL CONFIGURATION DESCRIPTION REFERENCE INFORMATION

(HPPC38) O 0A17-LTPT1138.038 3.(R1SC7F5M)(V107E23)(V7K5)

DSBRK	RUDER	ELEVON	BDCLAP	SREF	SO IN.
30.000	.000	.000	-14.250	87.1560	INCHES
				19.3545	INCHES
				14.0502	INCHES
				12.5770	INCHES
				.0000	INCHES
				6.0000	INCHES
				.0150	SCALE

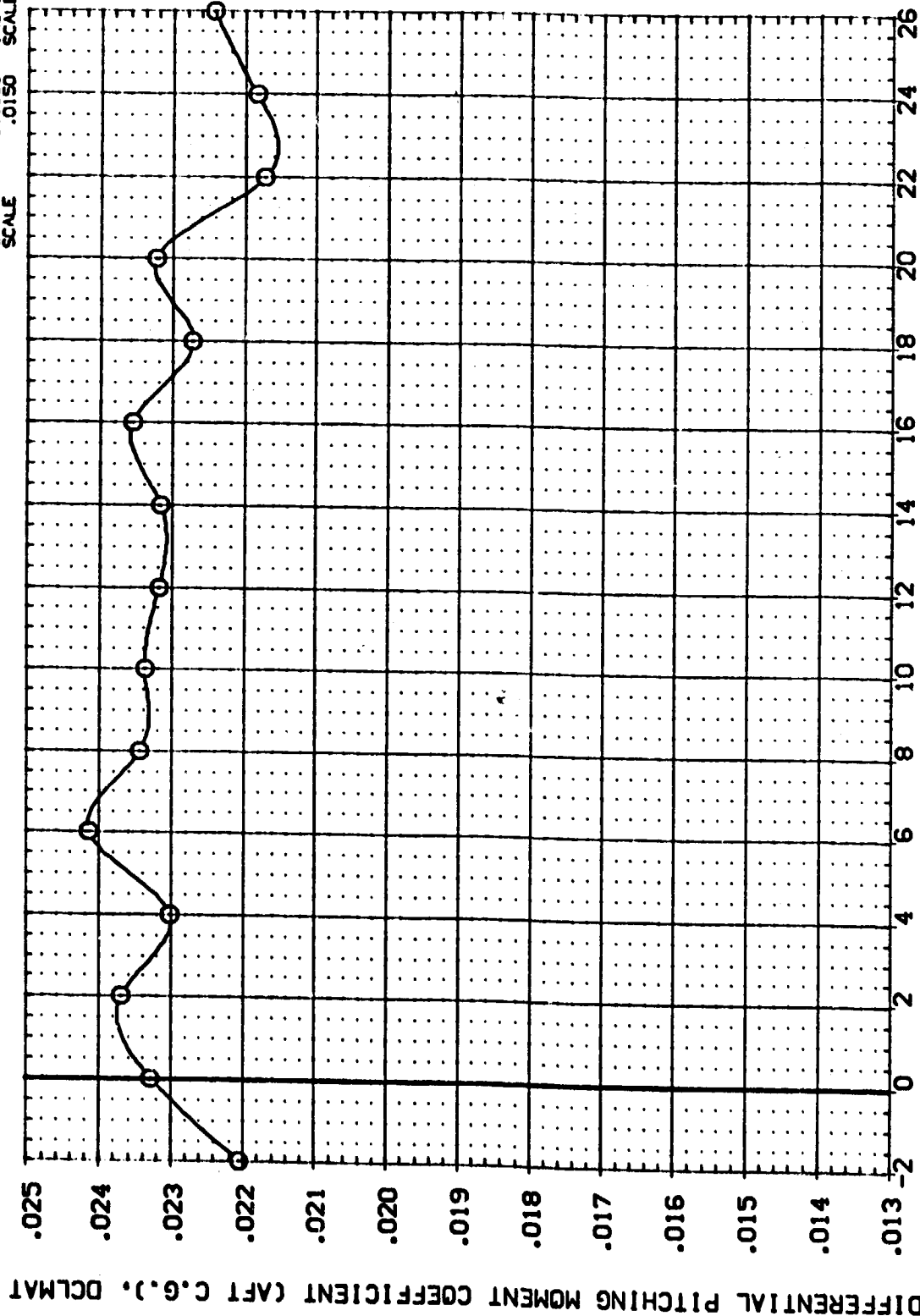


FIGURE 8 139B ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL (FP008) ○ DATA SET SYMBOL (FP008) 3. (B19C7F5M4) (V107E23) (V7R5)

ORBITER SPEED 30.000

RUDDER .000

ELEVON .000

BD FLAP .000

REFERENCE INFORMATION

SREF	87.1560	50. IN.
LREF	19.3545	INCHES
BREF	14.0502	INCHES
XMRP	12.5770	INCHES
YMRP	.0000	INCHES
ZMRP	6.0000	INCHES
SCALE	.0150	SCALE

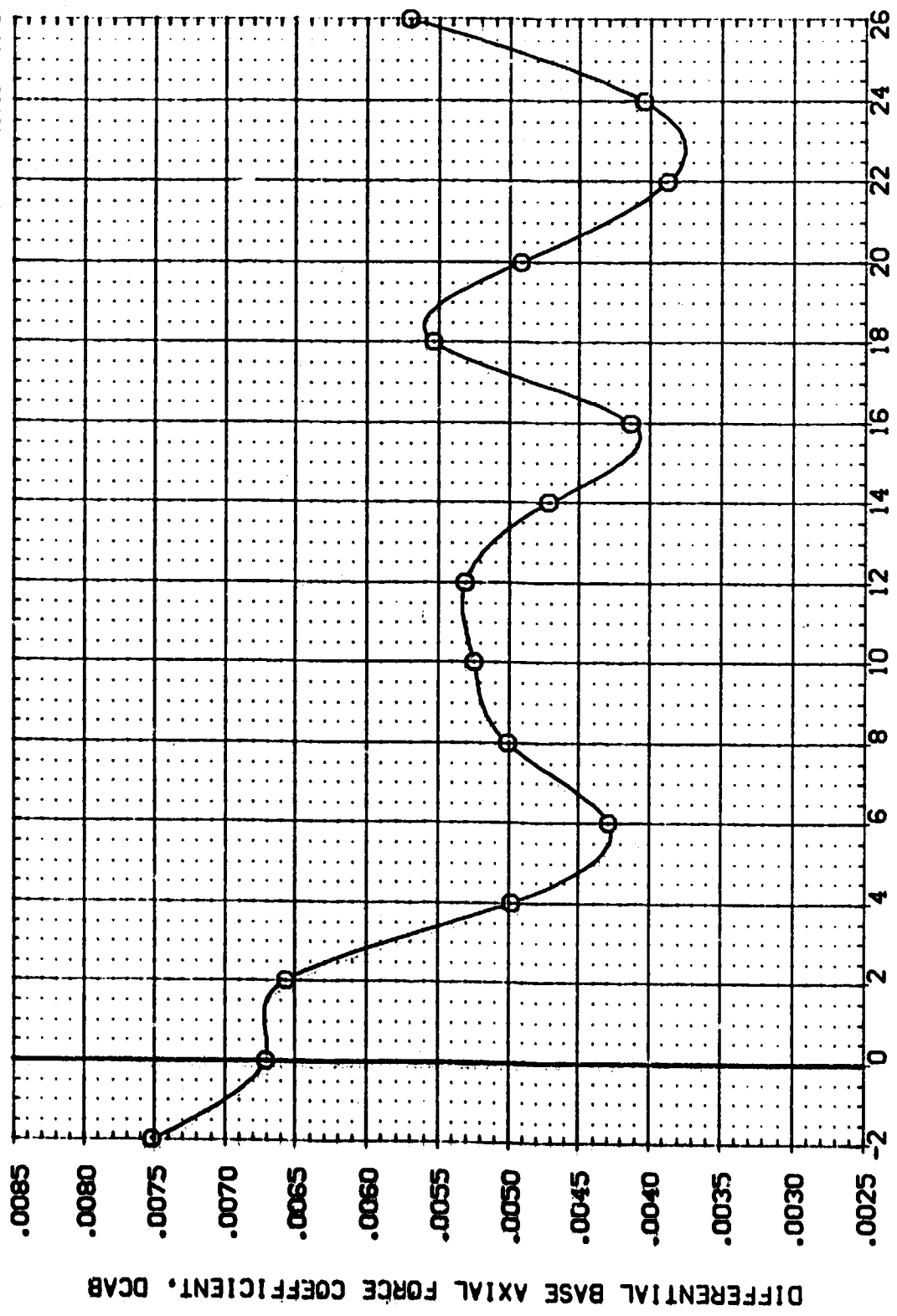



FIGURE 8 1398 ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 10.00



DATA SET SYMBOL:  CONFIGURATION DESCRIPTION: CA17.LTPT138.CRB 3.(B19CTFSM)(V107E23)(V7R5)
(APPO2) CA17.LTPT138.CRB 3.(B19CTFSM)(V107E23)(V7R5)
(APPO3) CA17.LTPT138.CRB 3.(B19CTFSM)(V107E23)(V7R5)
(APPO4) CA17.LTPT138.CRB 3.(B19CTFSM)(V107E23)(V7R5)

ELEVTR BOFLAP SPOBRK RUDDER REFERENCE INFORMATION
.000 -14.250 .000 .000 SREF 87.1560 SO.IN.
.000 .000 .000 .000 LREF 19.3545 INCHES
.000 13.750 .000 .000 BRFP 14.0502 INCHES
VT RP 12.5770 INCHES
ZT RP 6.0000 INCHES
SCALE .0150 SCALE

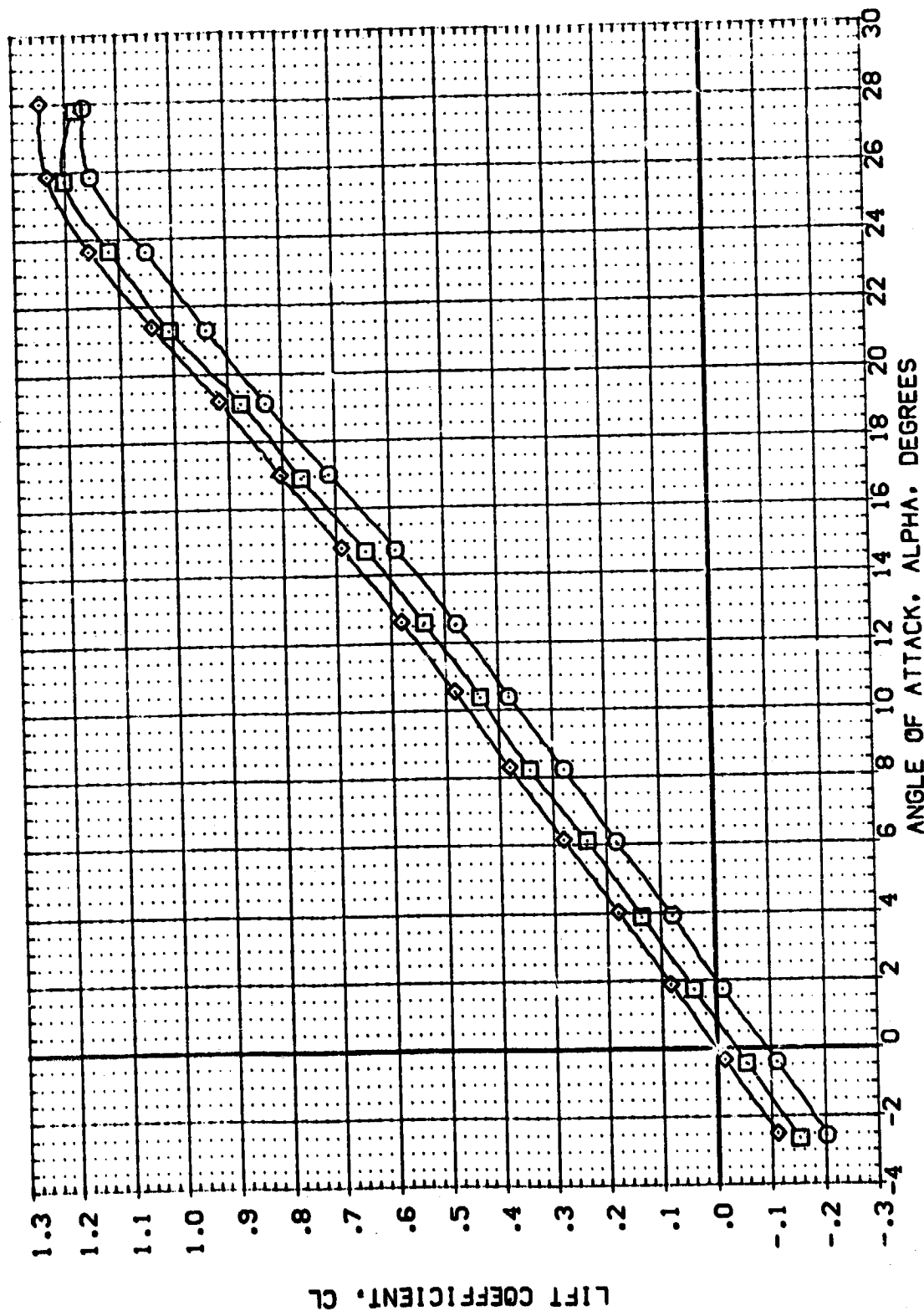


FIGURE 9 1398 ORBITER BODY FLAP DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BDFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION	
(APPO2)	0A17.LTPT138-0R8 3.(B1SC7F5M4)(V107E23)(V7MS)	.000	-14.250	24.920	.000	SREF	87.1560 SO.IN.
(APPO3)	0A17.LTPT138-0R8 3.(B1SC7F5M4)(V107E23)(V7MS)	.000	.000	24.920	.000	LREF	19.3545 INCHES
(APPO5)	0A17.LTPT138-0R8 3.(B1SC7F5M4)(V107E23)(V7MS)	.000	13.750	24.920	.000	BREF	14.0502 INCHES
						XREF	12.5770 INCHES
						YREF	.0000 INCHES
						ZREF	6.0000 INCHES
						SCALE	.0150 SCALE

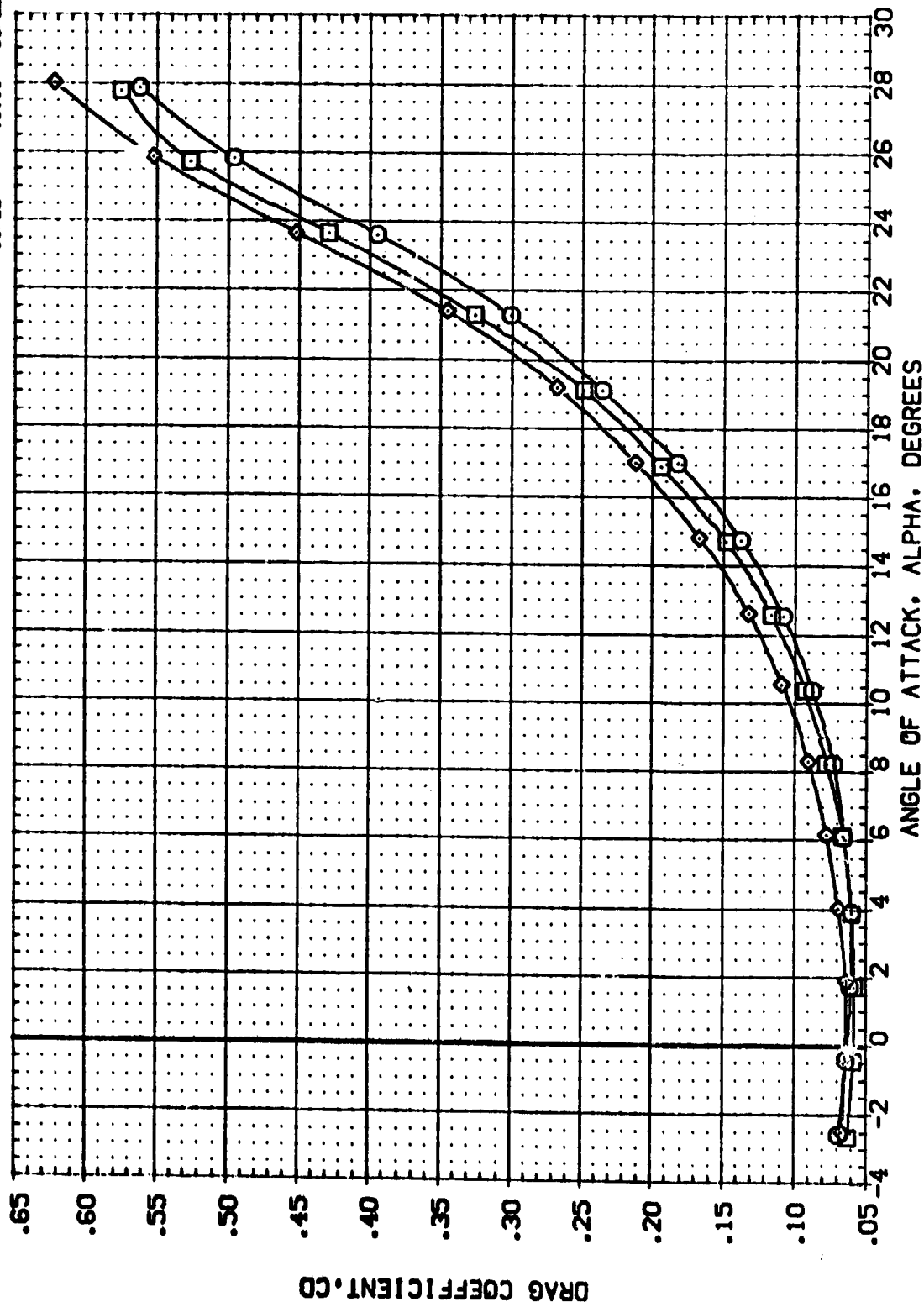


FIGURE 9 1398 ORBITER BODY FLAP DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVTR		BOFLAP		SPDRBK		RUDDER		REFERENCE INFORMATION	
(APPOD2)	DA17.LTPT138.CRB	3.(B1SC7F5M4)	(V107E23)(V7RS)	.000	-14.250	24.920	.000	.000	.000	SREF	87.1560	50.IN.	
(APPOD6)	DA17.LTPT138.CRB	3.(B1SC7F5M4)	(V107E23)(V7RS)	.000	.000	24.920	.000	.000	.000	LREF	19.3545	INCHES	
(APPOD5)	DA17.LTPT138.CRB	3.(B1SC7F5M4)	(V107E23)(V7RS)	.000	13.750	24.920	.000	.000	.000	BREF	14.0502	INCHES	
										YPRP	12.5776	INCHES	
										ZPRP	6.0000	INCHES	
										SCALE	.0150	SCALE	

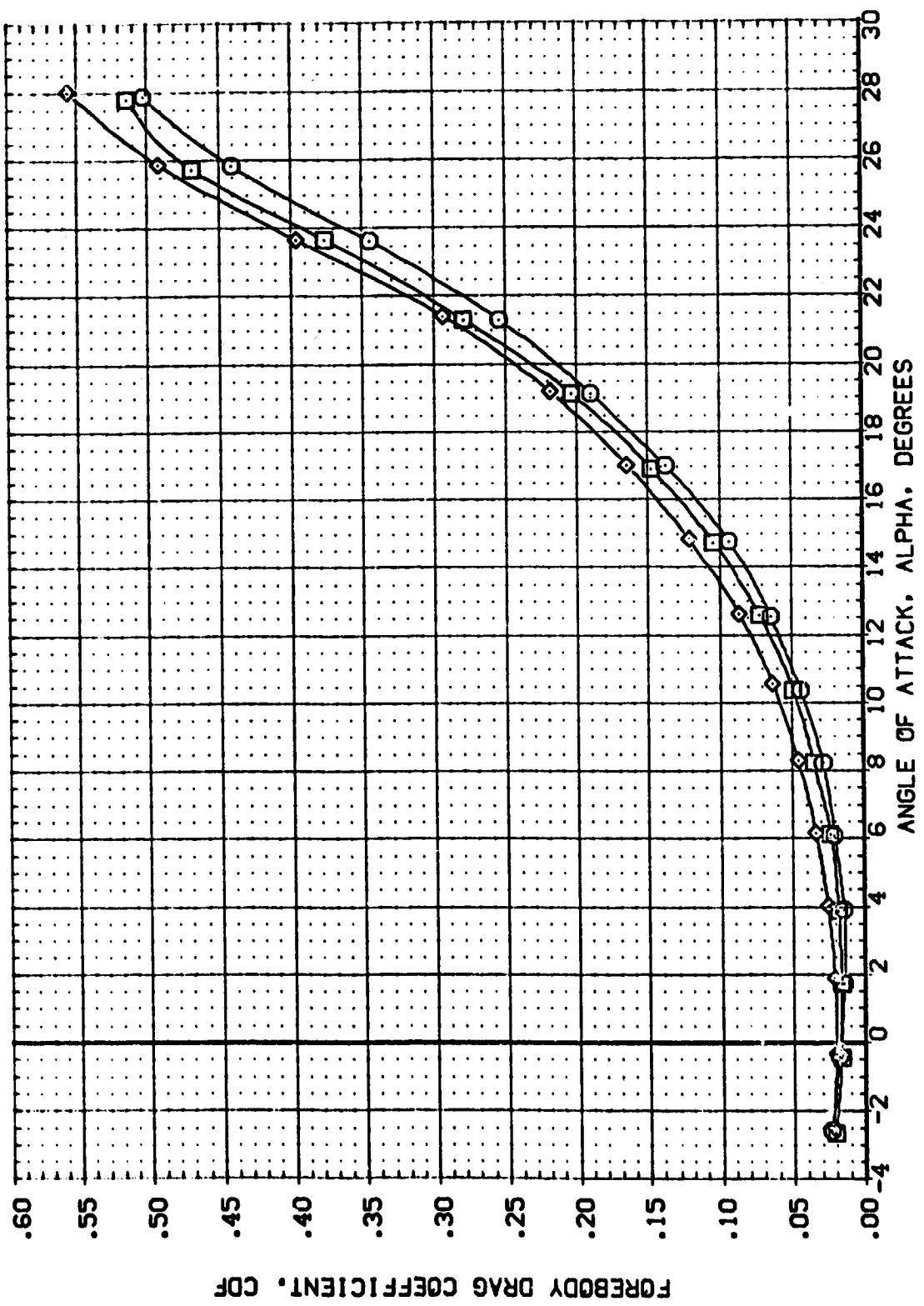


FIGURE 9 1398 ORBITER BODY FLAP DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (APPC2) DA17.LTPT138.098 3.(B18C7F5M4)(V107E23)(V7R5)
 (APPC3) DA17.LTPT138.098 3.(B18C7F5M4)(V107E23)(V7R5)
 (APPC5) DA17.LTPT138.098 3.(B18C7F5M4)(V107E23)(V7R5)

ELEVTR BOFLAP SFDBRK RUDDER
 .000 -14.250 .000 .000
 .000 .000 24.520 .000
 .000 13.750 24.520 .000

REFERENCE INFORMATION
 SREF 87.1560 50. IN.
 LREF 19.3545 IN-ES
 BREF 14.0522 IN-ES
 XRRP 12.5775 IN-ES
 YRRP .0000 IN-ES
 ZRRP 6.0000 IN-ES
 SCALE .0150 SCALE

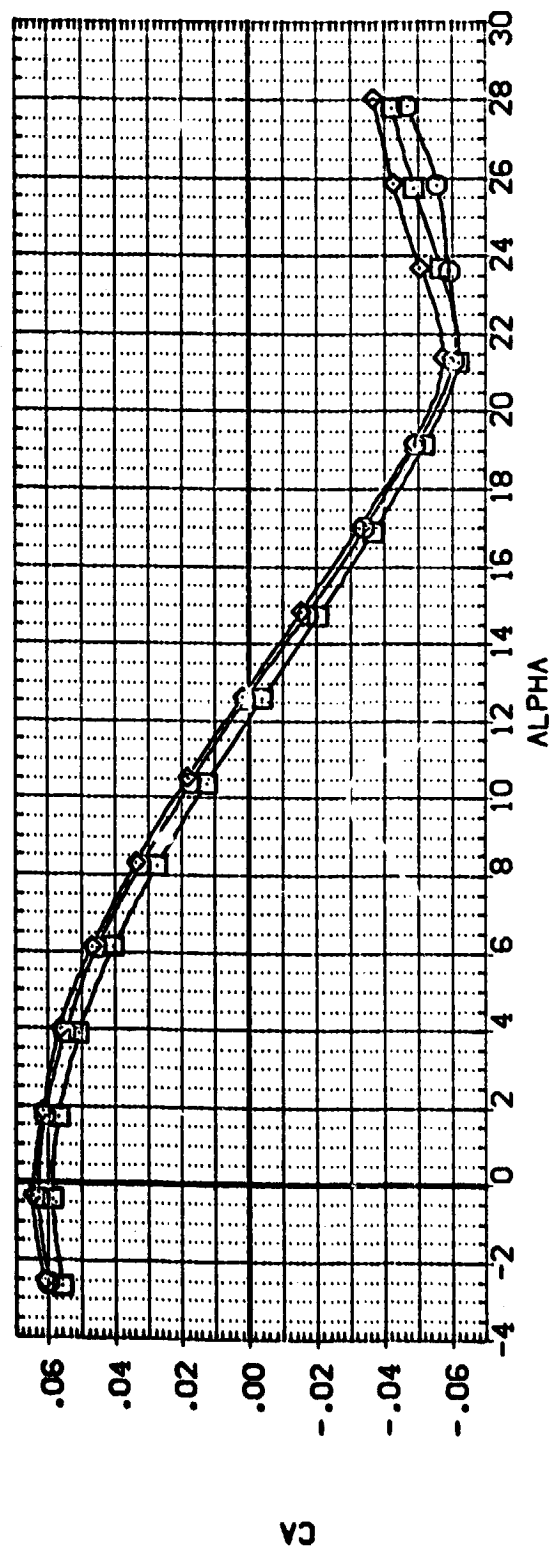
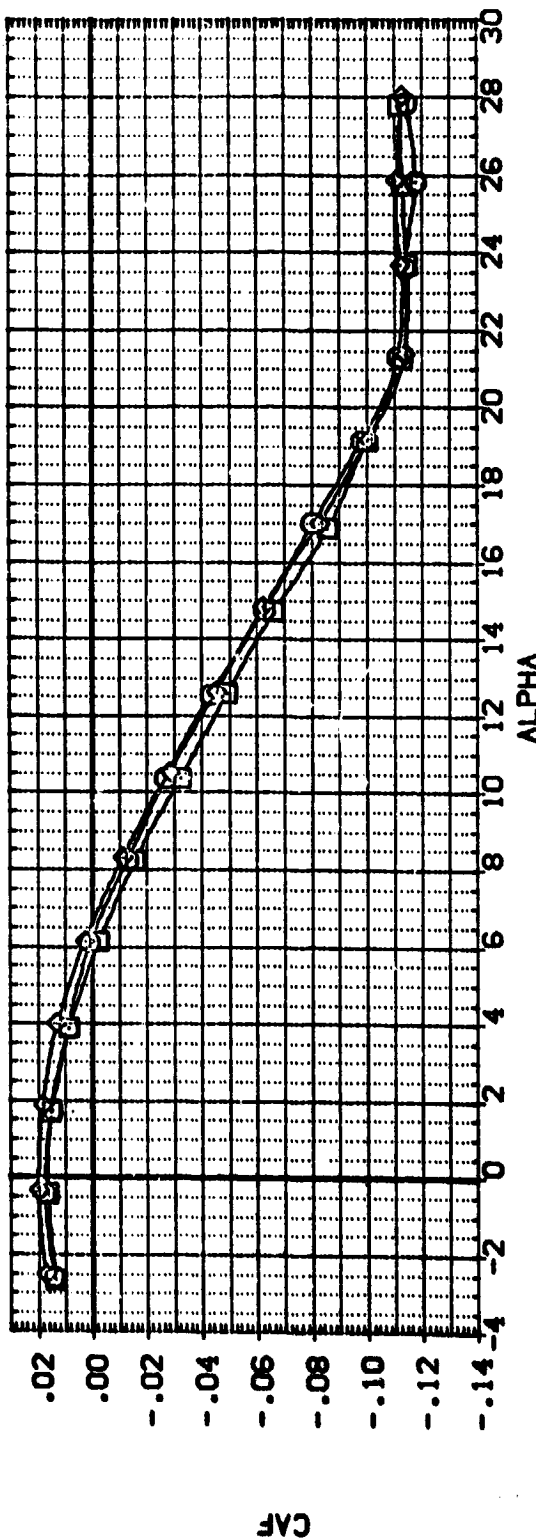


FIGURE 9 139B ORBITER BODY FLAP DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(APPC02) DA17.LTPT138.DRB 3.(B19C7FSM4)(V107E23)(V7RS)

(APPC03) DA17.LTPT138.DRB 3.(B19C7FSM4)(V107E23)(V7RS)

(APPC05) DA17.LTPT138.DRB 3.(B19C7FSM4)(V107E23)(V7RS)

ELEVTR BOFLAP SPOBRK RUDDER REFERENCE INFORMATION

.000 -14.250 24.920 .000 SREF 87.1560 50.1N

.000 .000 24.920 .000 LREF 19.3545 INCHES

.000 13.750 24.920 .000 BREF 14.0502 INCHES

.000 .000 .000 .000 XMRP 12.5770 INCHES

.000 .000 .000 .000 YMRP 6.0000 INCHES

.000 .000 .000 .000 ZMRP 6.0000 INCHES

.000 .000 .000 .000 SCALE .0150 SCALE

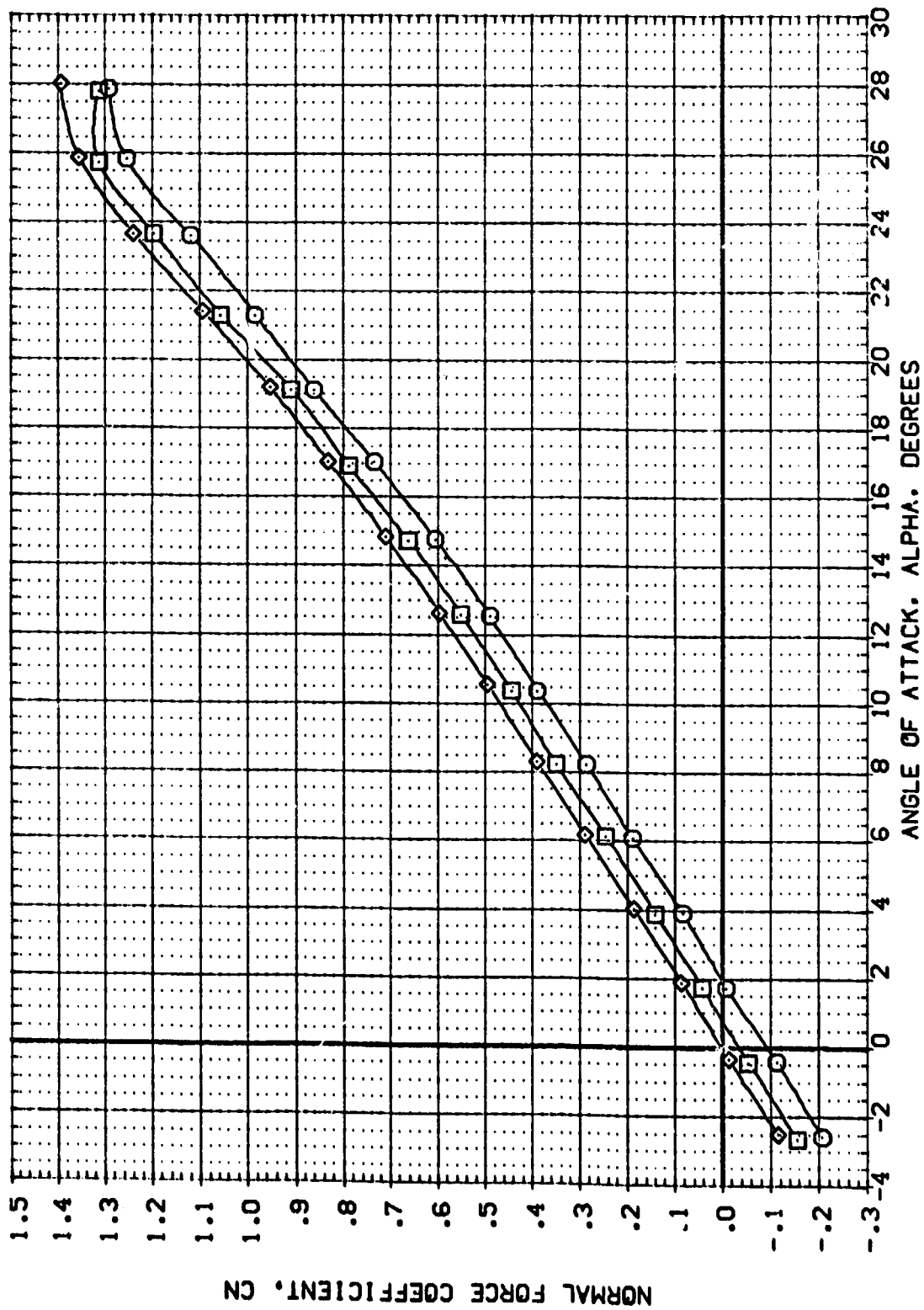


FIGURE 9 139B ORBITER BODY FLAP DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (APPO02) 0117.LTPT136.0R8 3.(819C7F5M4)(V107E23)(V7R5)
 (APPO03) 0117.LTPT136.0R8 3.(819C7F5M4)(V107E23)(V7R5)
 (APPO05) 0117.LTPT136.0R8 3.(819C7F5M4)(V107E23)(V7R5)

ELEVTR BDFLAP SPDBRK RUDDER
 .000 -14.250 24.920 .000
 .000 .000 24.920 .000
 .000 13.750 24.920 .000

REFERENCE INFORMATION
 SREF 87.1560 SQ.IN.
 LREF 19.3545 INCHES
 BREF 14.0502 INCHES
 XMRP 12.5770 INCHES
 YMRP 6.0000 INCHES
 ZMRP 6.0000 INCHES
 SCALE .0150 SCALE

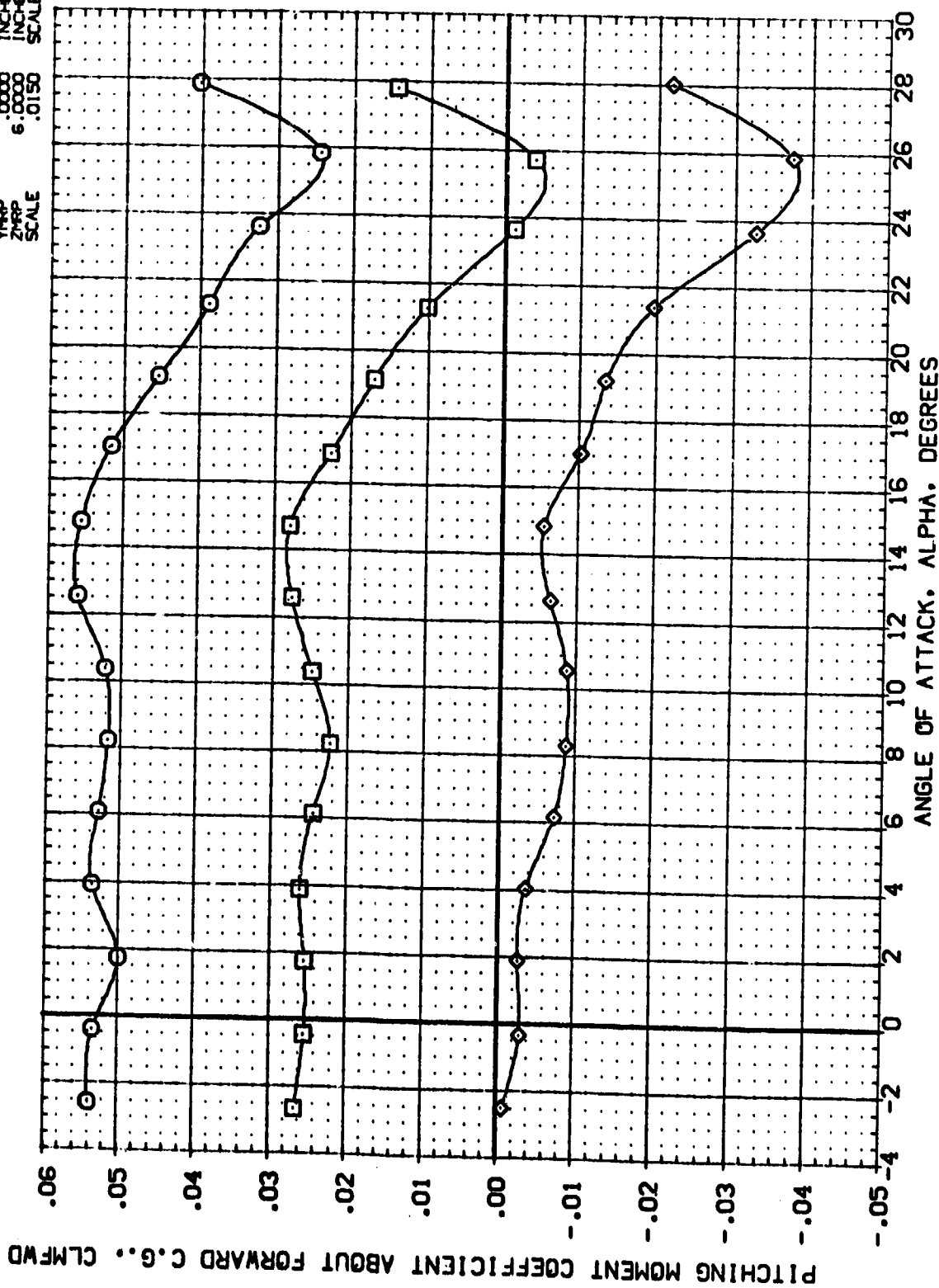


FIGURE 9 139B ORBITER BODY FLAP DEFLECTION EFFECTS

(A)RN/L = 4.70



DATA SET SYMB.	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APR02)	CA17.LTPT138.CRB 3.(B1SC7FSM)(V107E23)(V7RS)	.000	-14.250	24.920	.000	SREF 87.1560 SQ. IN.
(APR03)	CA17.LTPT138.CRB 3.(B1SC7FSM)(V107E23)(V7RS)	.000	.000	24.920	.000	LREF 19.3545 INCHES
(APR05)	CA17.LTPT138.CRB 3.(B1SC7FSM)(V107E23)(V7RS)	.000	13.750	24.920	.000	BREF 14.0502 INCHES
						XMRP 12.5770 INCHES
						YMRP .0000 INCHES
						ZMRP 6.0000 INCHES
						SCALE .0150

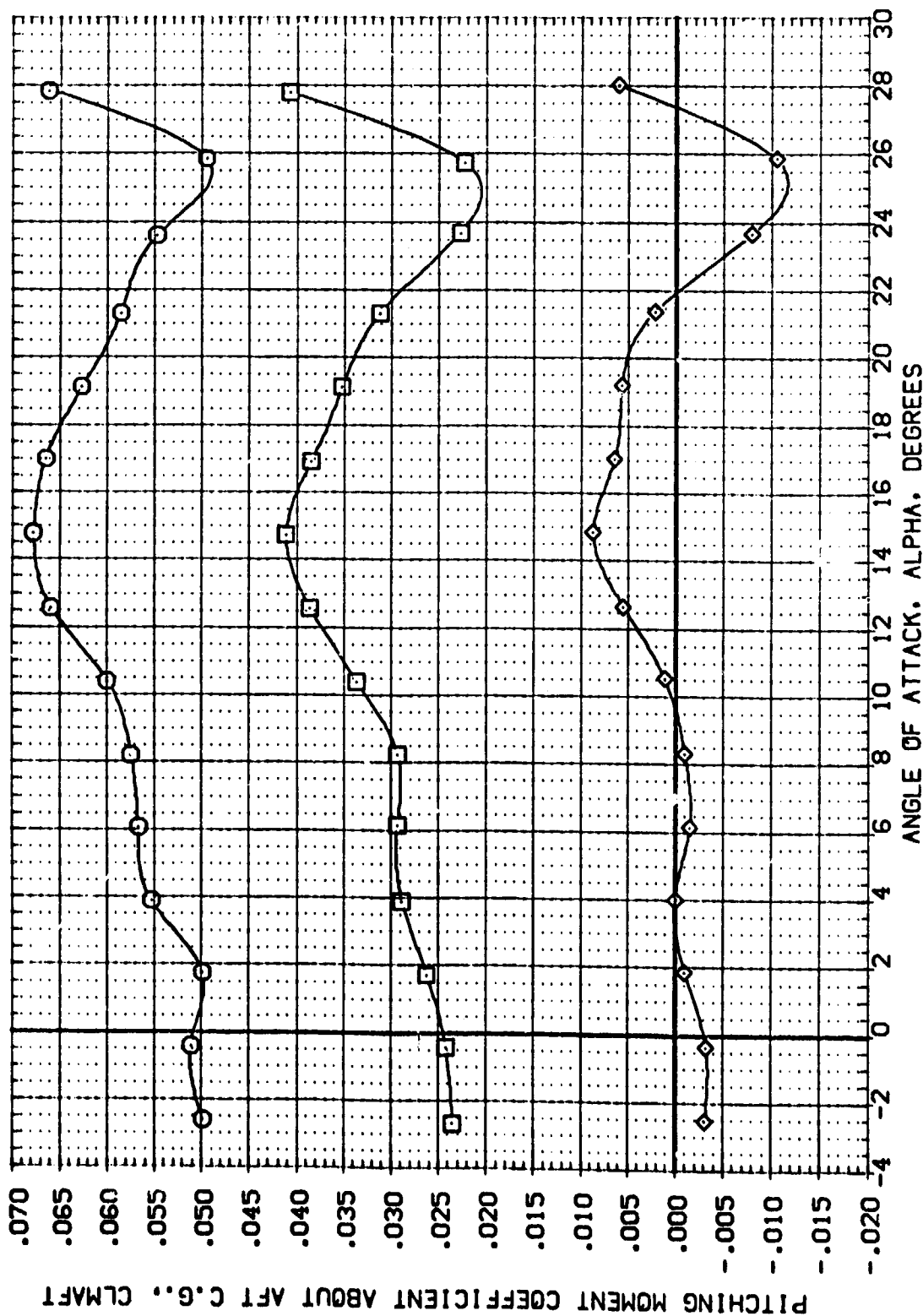


FIGURE 9 139B ORBITER BODY FLAP DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BDFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APPO02)	GA17.LTPT138.CRB 3.(B19C7F5M4)(V107E23)(V7RS)	.000	-14.250	24.920	.000	SREF 87.1560 SQ.IN.
(APPO03)	GA17.LTPT138.CRB 3.(B19C7F5M4)(V107E23)(V7RS)	.000	.000	24.920	.000	LREF 19.3545 INCHES
(APPO05)	GA17.LTPT138.CRB 3.(B19C7F5M4)(V107E23)(V7RS)	.000	13.750	24.920	.000	BREF 12.5770 INCHES
						XREF .0000 INCHES
						YREF .0000 INCHES
						ZREF .0150 INCHES
						SCALE

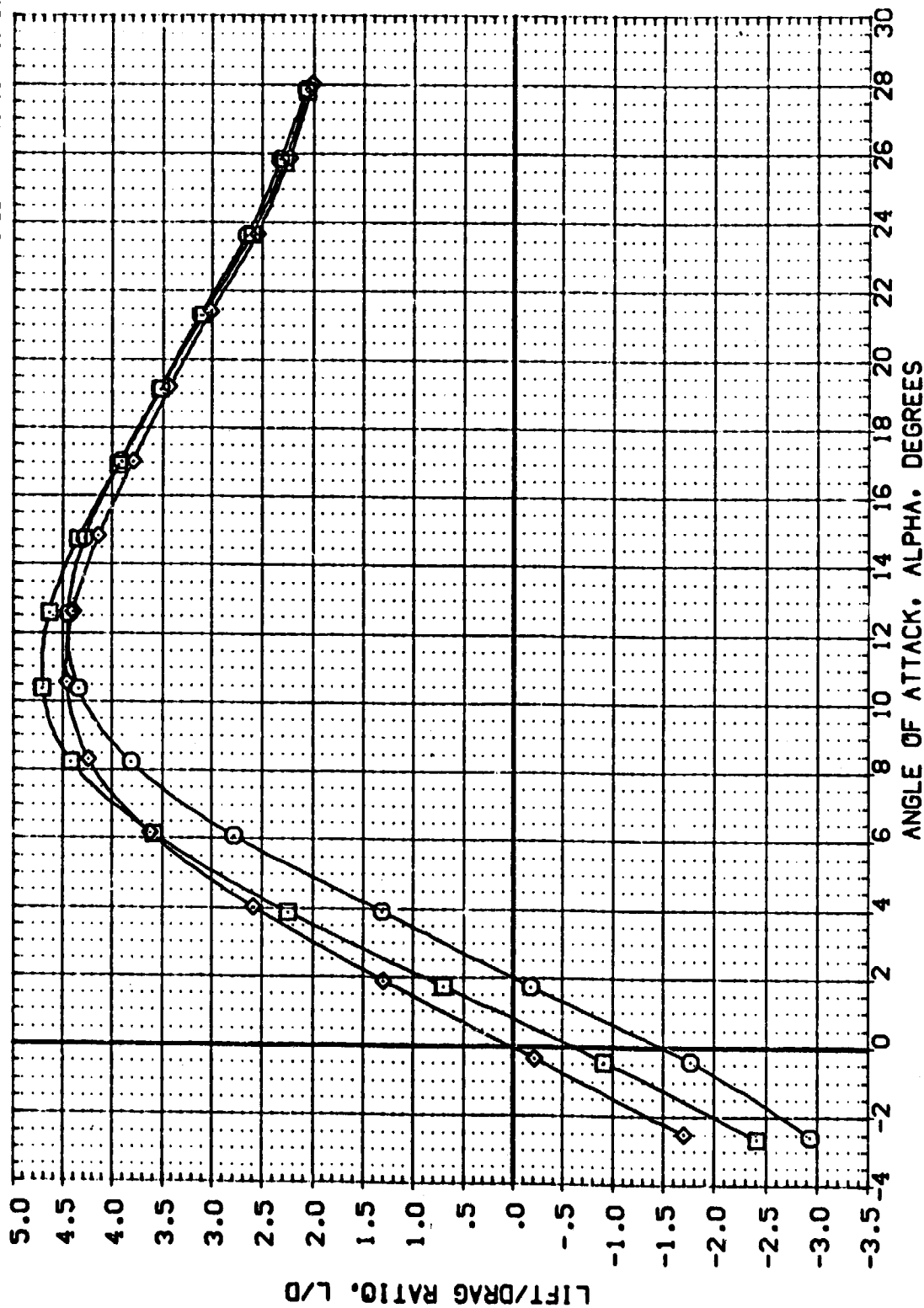


FIGURE 9 1398 ORBITER BODY FLAP DEFLECTION EFFECTS

(A)RN/L = 4.70

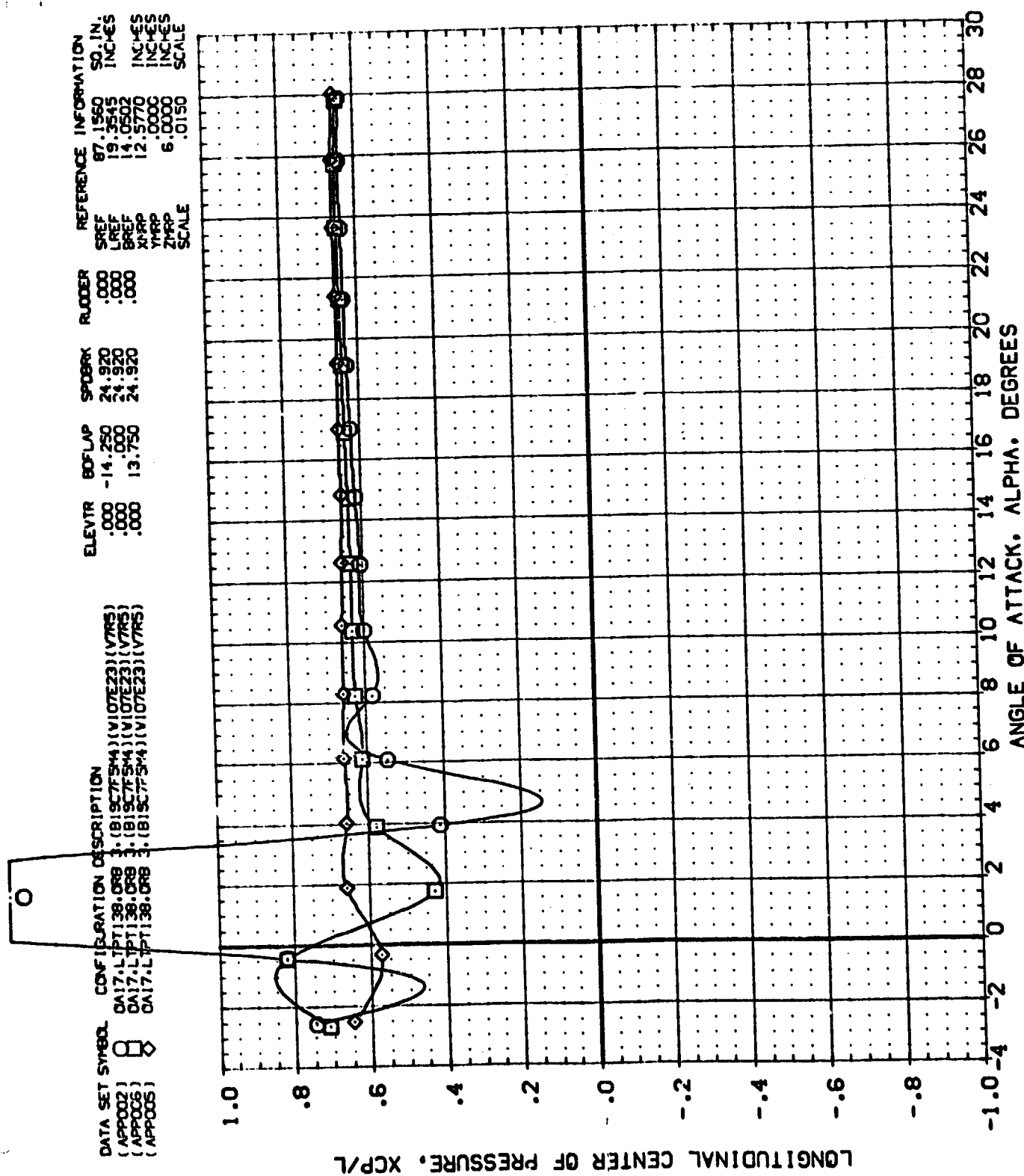


FIGURE 9 139B ORBITER BODY FLAP DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	SDFLAP	SPDBRK	RUDDER	REFERENCE INFORMATION
(APF002)	DA17.LTPT138.D58 3.(81SC7F3M)(V107E23)(V7R5)	.000	-14.250	24.920	.000	SREF 87.1560 SQ.IN.
(APF006)	DA17.LTPT138.D58 3.(81SC7F3M)(V107E23)(V7R5)	.000	.000	24.920	.000	LREF 19.3545 INCHES
(APF005)	DA17.LTPT138.D58 3.(81SC7F3M)(V107E23)(V7R5)	.000	13.750	24.920	.000	BREF 14.0502 INCHES
(APF003)						YREF 12.5770 INCHES
						ZREF .0000 INCHES
						SCALE .0150

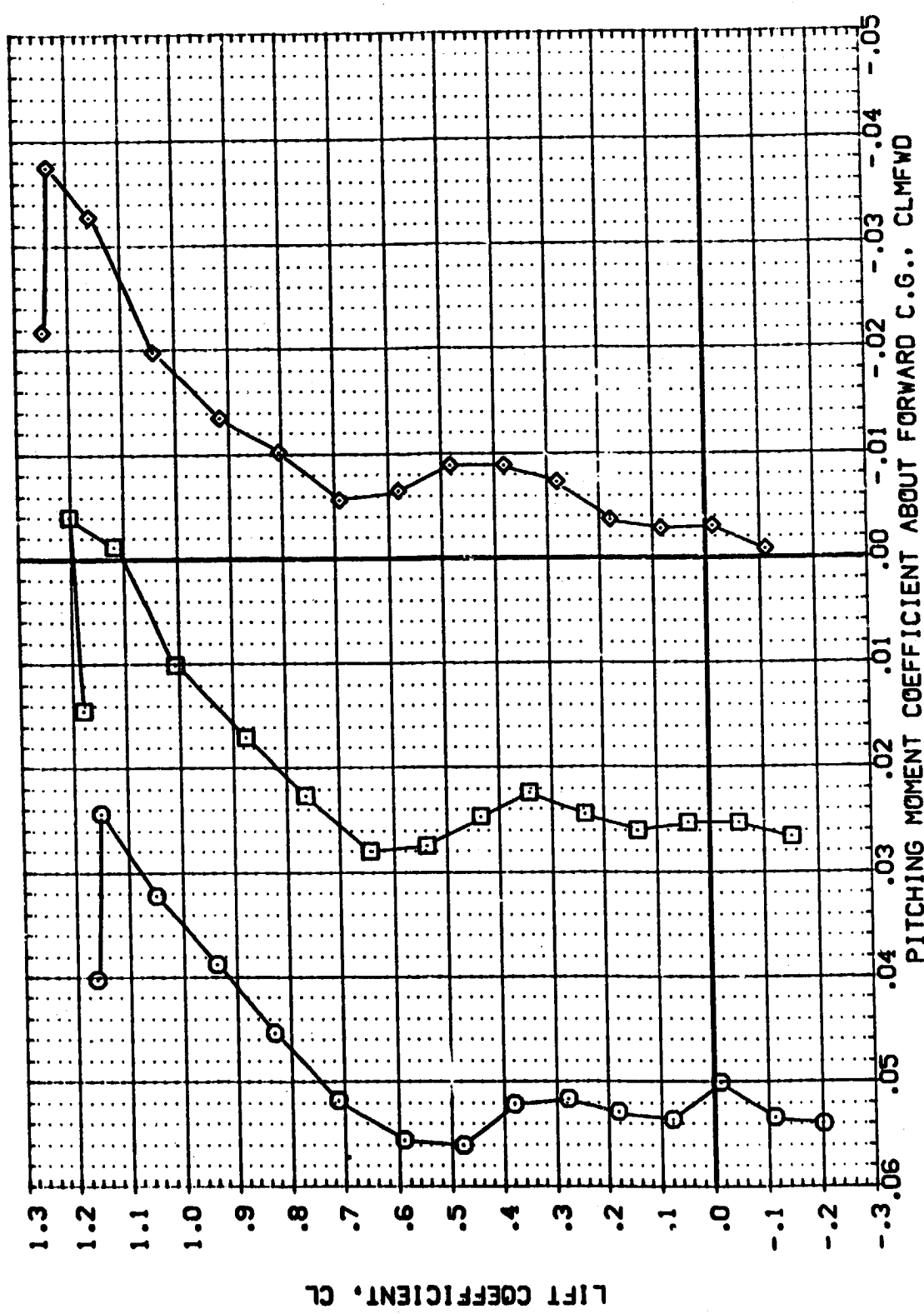


FIGURE 9 139B ORBITER BODY FLAP DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPDBRK	RUDDER	REFERENCE INFORMATION
(APPO02)	DA17.LTPT138.DRB 3.(B19C7F5M4)(V107E23)(V7R5)	.000	-14.250	24.920	.000	SREF 87.1560 SQ.IN.
(APPO03)	DA17.LTPT138.DRB 3.(B19C7F5M4)(V107E23)(V7R5)	.000	.000	24.920	.000	LREF 19.3545 INCHES
(APPO05)	DA17.LTPT138.DRB 3.(B19C7F5M4)(V107E23)(V7R5)	.000	13.750	24.920	.000	BREF 14.0502 INCHES
						XMRP 12.5770 INCHES
						YMRP .0000 INCHES
						ZMRP 6.0000 INCHES
						SCALE .0150

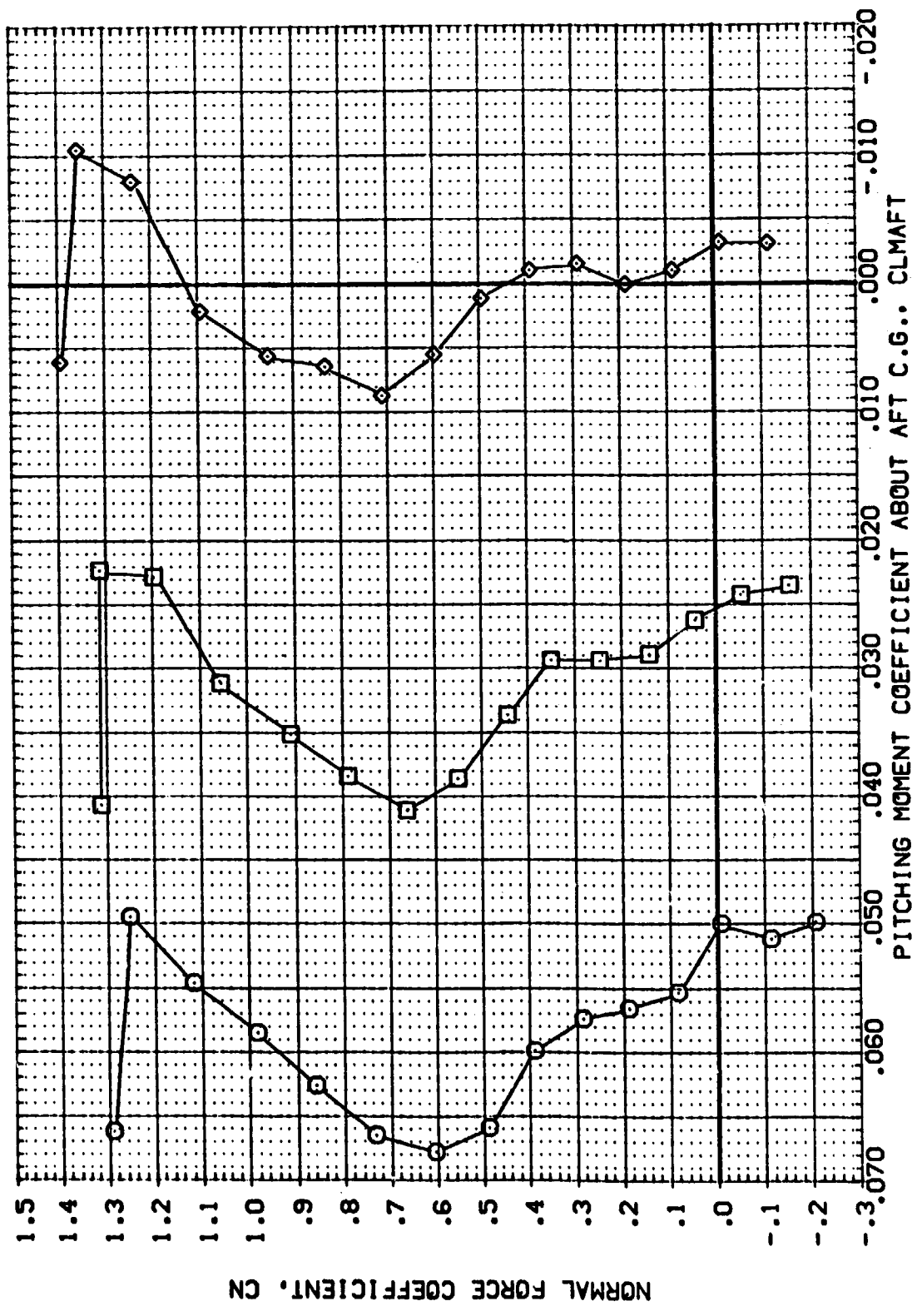


FIGURE 3-139B ORBITER BODY FLAP DEFLECTION EFFECTS

(AJRN/L = 4.70

DATA SET SYMBOL

(APPO02)
(APPO03)
(APPO05)

CA17.LTPT138.CRB 3.(B1SC7FSM)(V107E23)(V7RS)
CA17.LTPT138.CRB 3.(B1SC7FSM)(V107E23)(V7RS)
CA17.LTPT138.CRB 3.(B1SC7FSM)(V107E23)(V7RS)

ELEVTR BOFLAP SPDRBK RUDDER
.000 -14.250 .000
.000 .000 24.920
.000 13.750 .000

REFERENCE INFORMATION
SREF 87.1560 SQ.IN.
LREF 19.3545 INCHES
BREF 14.0502 INCHES
XMRP 12.5770 INCHES
YMRP .0000 INCHES
ZMRP 6.0000 INCHES
SCALE .0150 INCHES

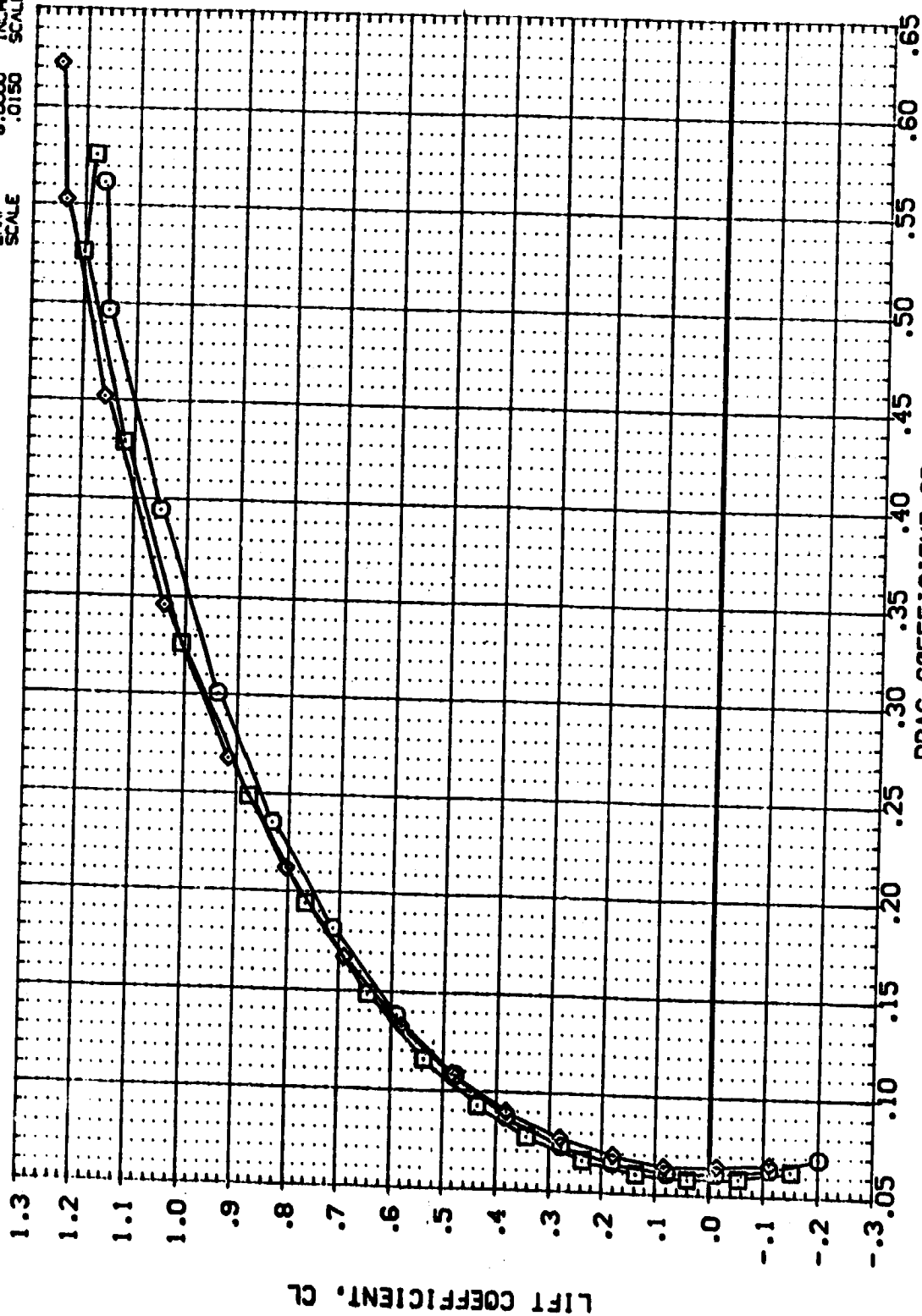


FIGURE 9 139B ORBITER BODY FLAP DEFLECTION EFFECTS
(A)RN/L = 4.70



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPDBRK	RUDER	REFERENCE INFORMATION
(RPP002)	DA17.LTPT138.D58 3.(B19C7F5M)(V107E23)(V7R5)	.000	-14.250	24.920	.000	SREF 87.1560 SO.IN.
(RPP003)	DA17.LTPT138.D58 3.(B19C7F5M)(V107E23)(V7R5)	.000	.000	24.920	.000	LREF 19.3545 INCHES
(RPP004)	DA17.LTPT138.D58 3.(B19C7F5M)(V107E23)(V7R5)	.000	13.750	24.920	.000	BREF 14.0502 INCHES
						XREF 12.5770 INCHES
						YREF 6.0000 INCHES
						ZREF 6.0000 INCHES
						SCALE .0150

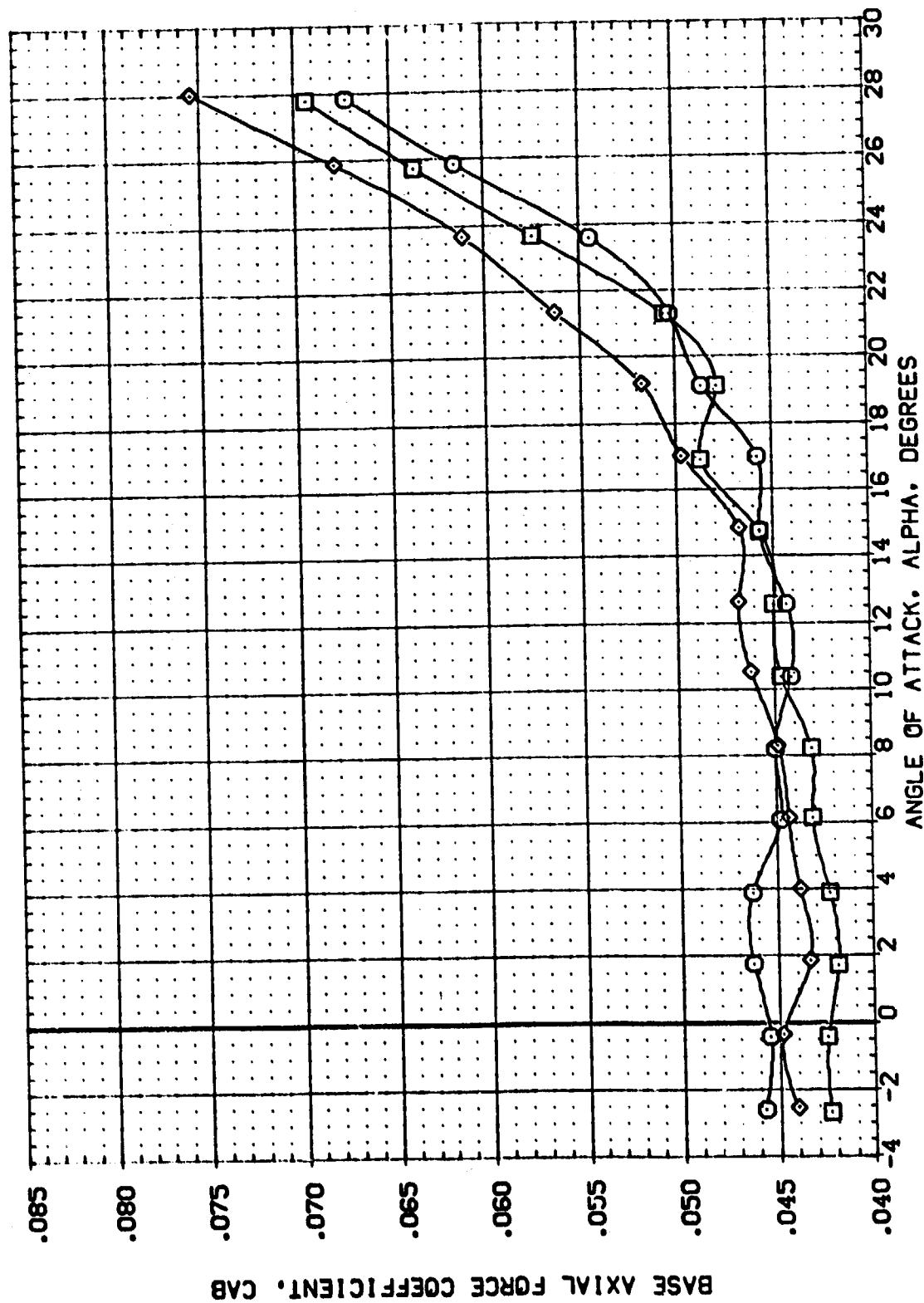


FIGURE 9 1398 ORBITER BODY FLAP DEFLECTION EFFECTS

(A) RN/L = 4.70

DATA SET SYMB. CONFIGURATION DESCRIPTION
 (APPROD2) 0A17.LTPT138.DSB 3. (B19C7F5M4)(V107E23)(V7R5)
 (APPROD5) DATA NOT AVAILABLE
 (APPROD5) 0A17.LTPT138.DSB 3. (B19C7F5M4)(V107E23)(V7R5)

ELEVTR BD FLAP SPODBK RUDDER REFERENCE INFORMATION
 .000 -14.250 .000 .000 SREF 87.1560 SQ. IN.
 .000 .000 .000 .000 LREF 19.3545 INCHES
 .000 13.750 .000 .000 BREF 14.6502 INCHES
 XPRP 12.5770 INCHES
 YPRP .0000 INCHES
 ZPRP 6.0000 INCHES
 SCALE .0150 SCALE

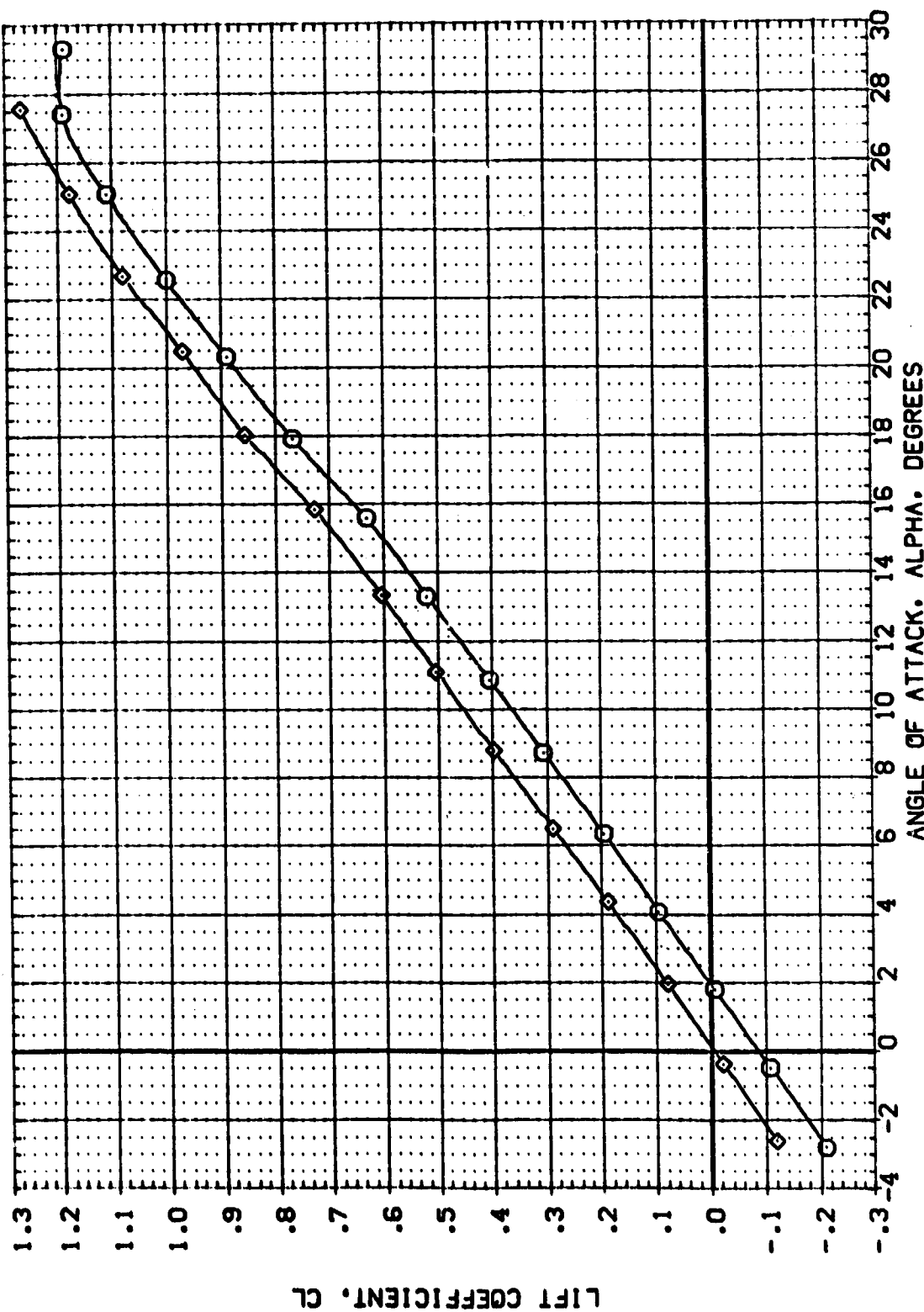


FIGURE 9 1398 ORBITER BODY FLAP DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (APPROX) DA17.LTPT138.DSB 3.(B1SC7F5M)(V10TE23)(V7RS)
 (APPROX) DATA NOT AVAILABLE
 (APPROX) DA17.LTPT138.DSB 3.(B1SC7F5M)(V10TE23)(V7RS)

ELEVTR BDFLAP SPOBRK RUDDER
 .000 -14.250 24.920 .000
 .000 .000 24.920 .000
 .000 13.750 24.920 .000

REFERENCE INFORMATION
 SREF 87.1550 50.IN.
 LREF 19.2545 INC-ES
 BREF 14.0502 INC-ES
 XMRP 12.5770 INC-ES
 YMRP 6.0000 INC-ES
 ZMRP 6.0000 INC-ES
 SCALE .0150 SCALE

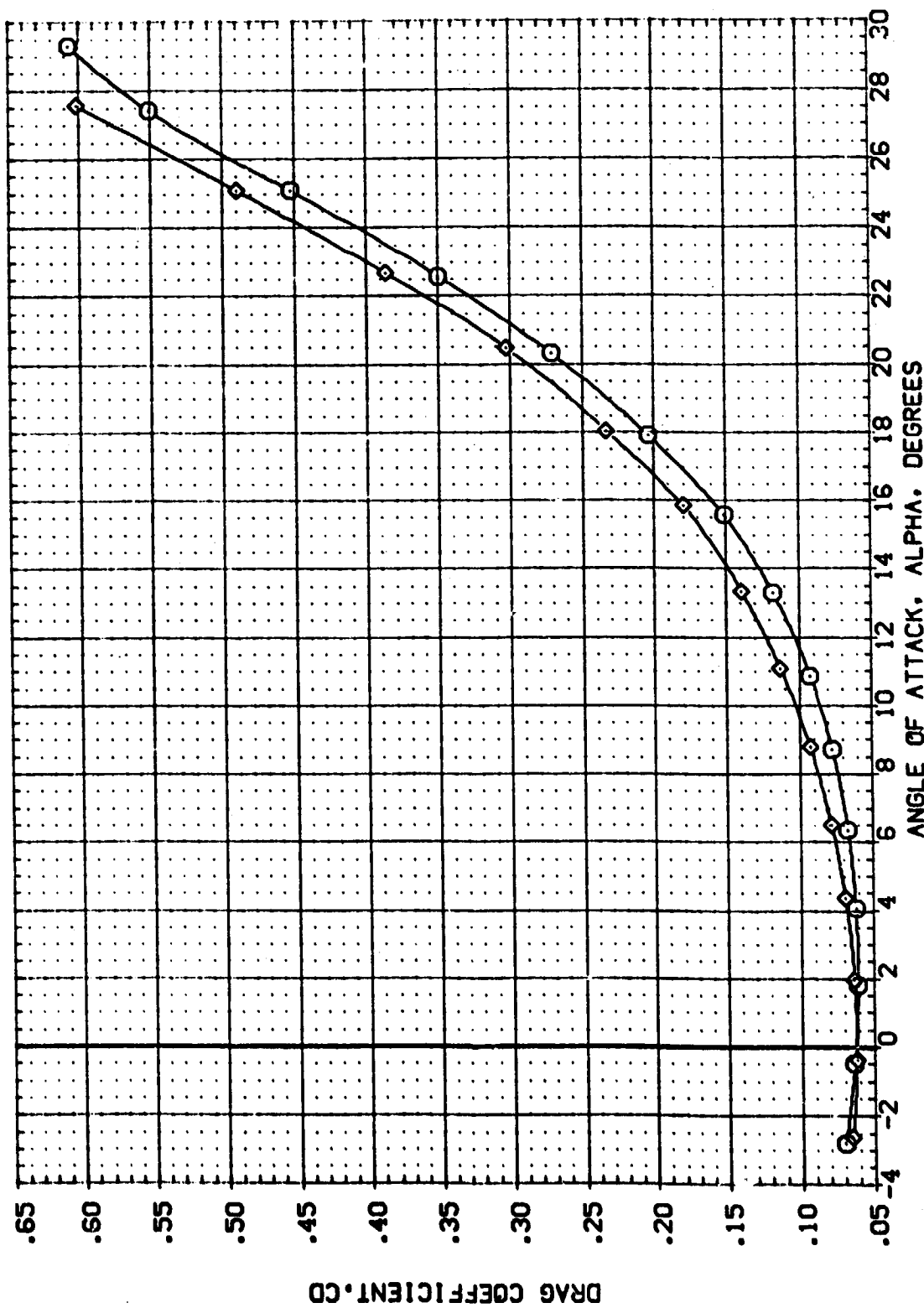



FIGURE 9 1398 ORBITER BODY FLAP DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL:  CONFIGURATION DESCRIPTION: DA17.LTPT138.D8B 3.(B1SC7FSM)(V107E23)(V7R5)
 (APPC2) DATA NOT AVAILABLE
 (APPC6) DA17.LTPT138.D8B 3.(B1SC7FSM)(V107E23)(V7R5)
 (APPC5)

ELEVTR: .000
 BDCLAP: -14.250
 SPOBRK: 24.920
 RUDER: .000

REFERENCE INFORMATION:
 SREF: 87.1560 INCHES
 LREF: 19.3545 INCHES
 BREF: 14.0502 INCHES
 YPRP: 12.5770 INCHES
 ZPRP: 6.0000 INCHES
 SCALE: .0150

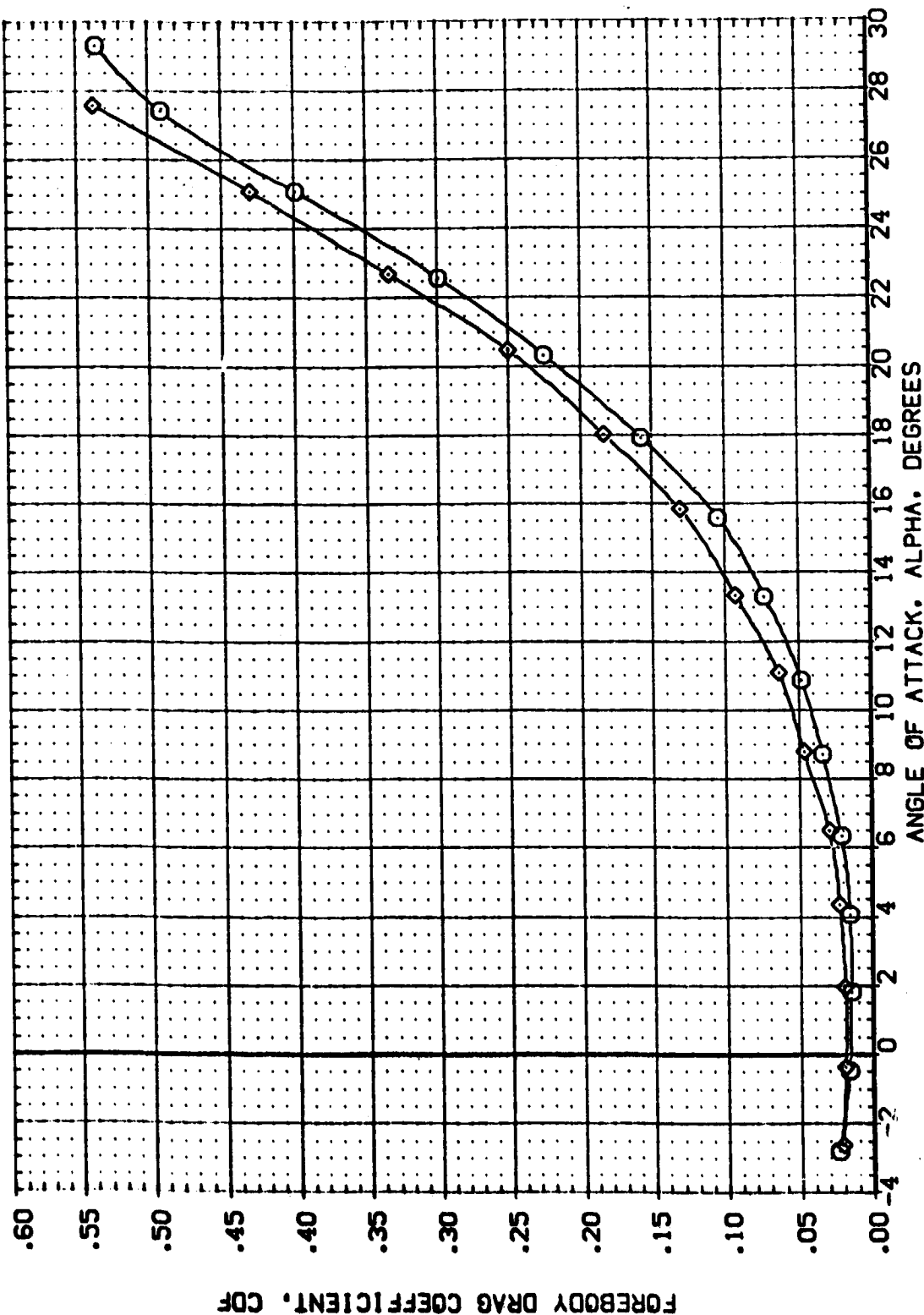


FIGURE 9 1398 ORBITER BODY FLAP DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL: (AP0002) (AP0003) (AP0005)

CONFIGURATION DESCRIPTION: 0A17.LTPT138.DR8 3.(B19C7FSM4)(V107EZ3)(V7R5) DATA NOT AVAILABLE 0A17.LTPT138.DR8 3.(B19C7FSM4)(V107EZ3)(V7R5)

ELEVTR: .000 .000 .000

BOFLAP: -14.250 .000 13.750

SPDRBK: 24.920 24.920 24.920

RUDGER: .000 .000 .000

REFERENCE INFORMATION: SREF 87.1550 SQ.IN. LREF 19.3545 INCHES BREF 14.0502 INCHES XMRP 12.5770 INCHES YMRP 6.0000 INCHES ZMRP .0150 INCHES SCALE

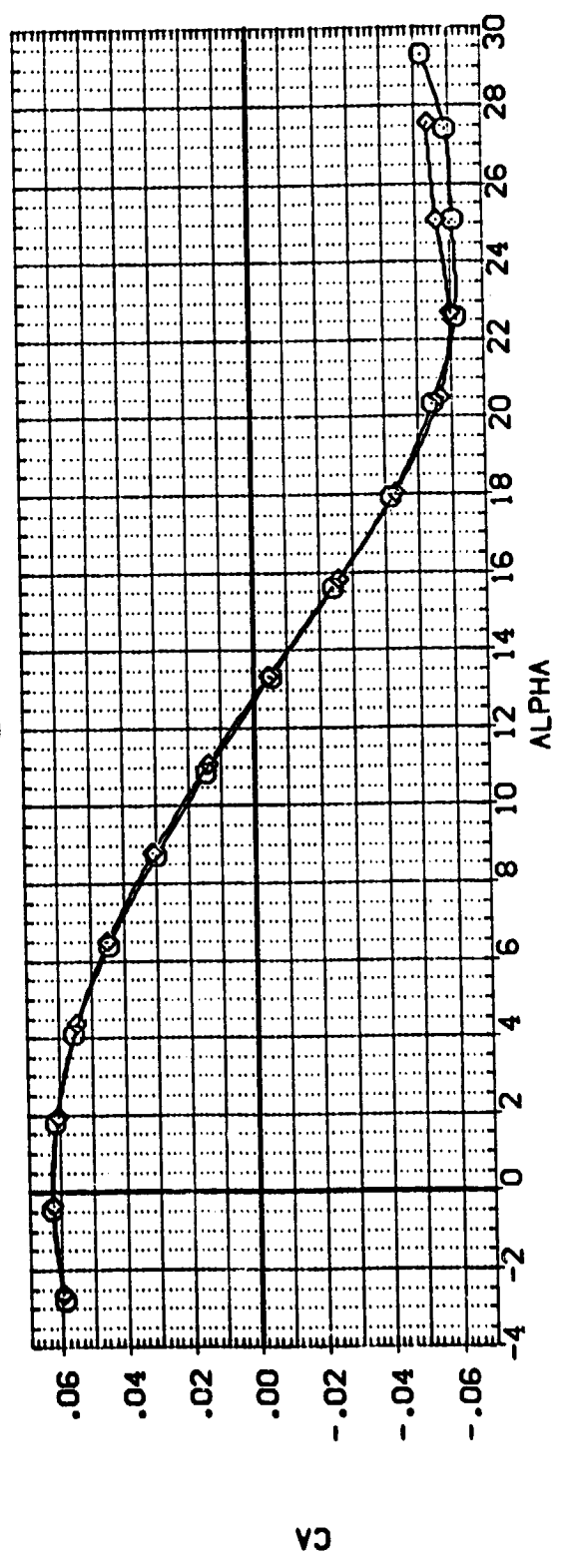
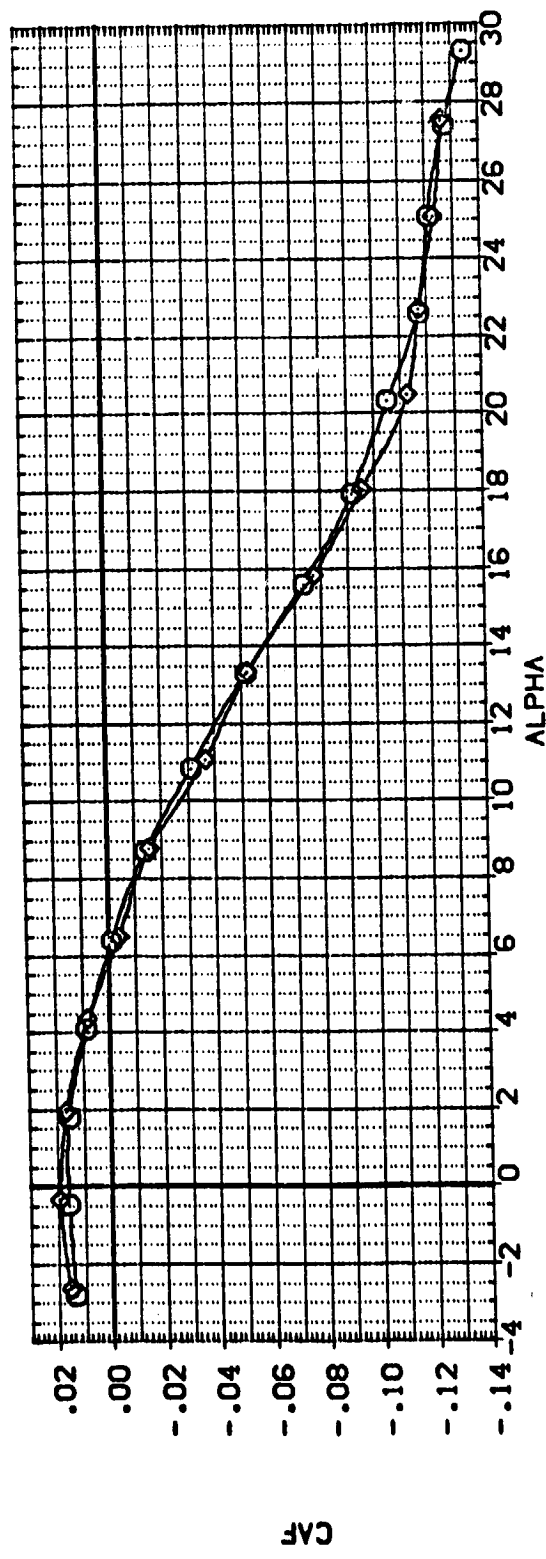


FIGURE 9 139B ORBITER BODY FLAP DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPDBRK	RUDER	REFERENCE INFORMATION
(APPC2)	CA17.LTPT138.CRB 3.(B19C7FSM4)(V107E23)(V7R5)	.000	-14.250	24.920	.000	SREF 87.1560 SQ. IN.
(APPC3)	DATA NOT AVAILABLE	.000	.000	24.920	.000	LREF 19.3545 INCHES
(APPC5)	CA17.LTPT138.CRB 3.(B19C7FSM4)(V107E23)(V7R5)	.000	13.750	24.920	.000	BREF 14.0502 INCHES
						XMRP 12.5770 INCHES
						YMRP .0000 INCHES
						ZMRP 6.0000 INCHES
						SCALE .0150 INCHES

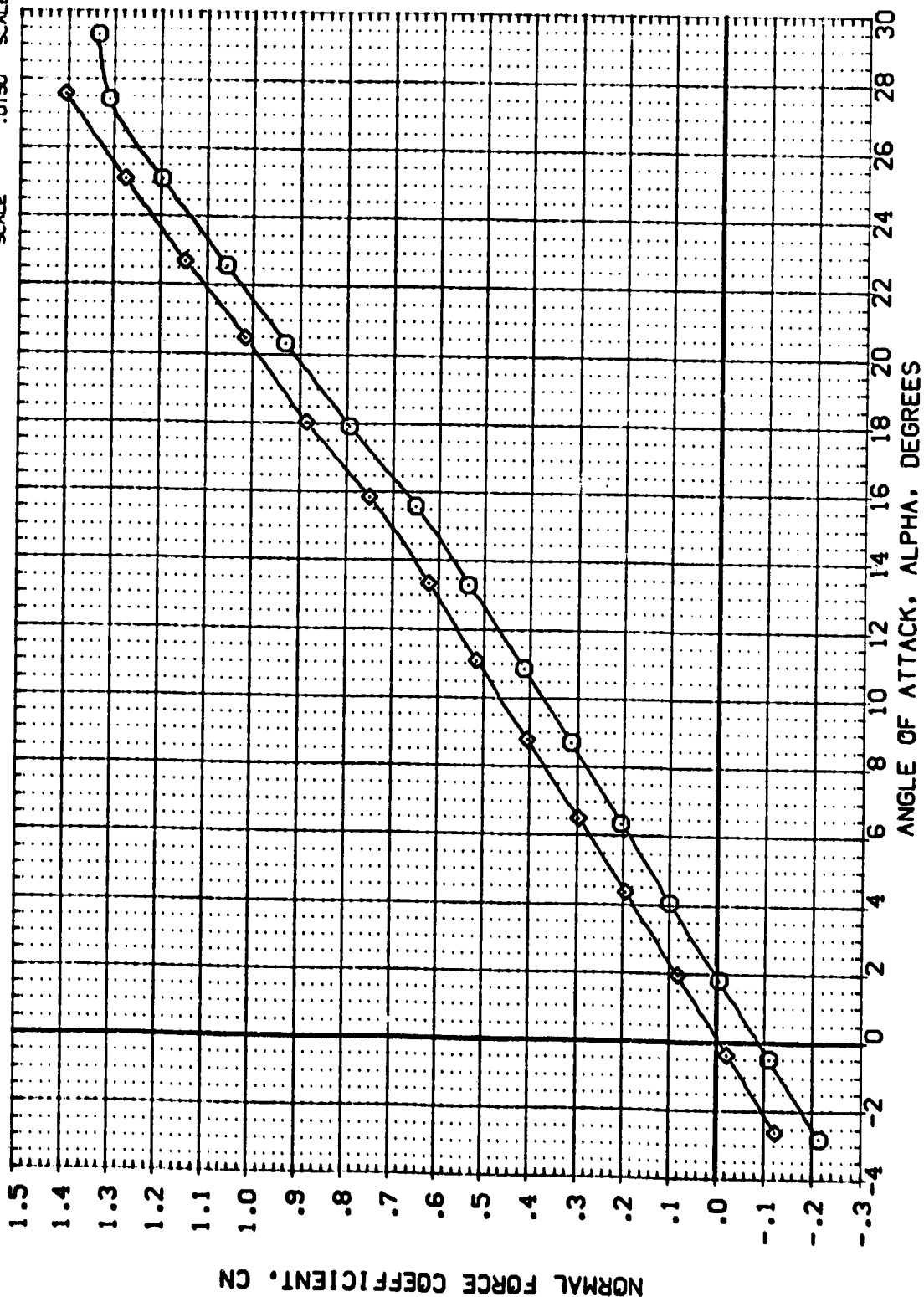


FIGURE 9 139B ORBITER BODY FLAP DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPDRBY	RUDDER	REFERENCE INFORMATION
(APPO02)	DA17.LTPT138.0RB 3.(B1SC7FSM4)(V107E23)(V7RS)	.000	-14.250	24.920	.000	SREF 87.1560 50.1N
(APPO05)	DATA NOT AVAILABLE	.000	.000	24.920	.000	LREF 19.3545 INCHES
(APPO05)	DA17.LTPT138.0RB 3.(B1SC7FSM4)(V107E23)(V7RS)	.000	13.750	24.920	.000	BREF 14.0502 INCHES
						XPRP 12.5770 INCHES
						YPRP .0000 INCHES
						ZPRP 6.0000 INCHES
						SCALE .0150

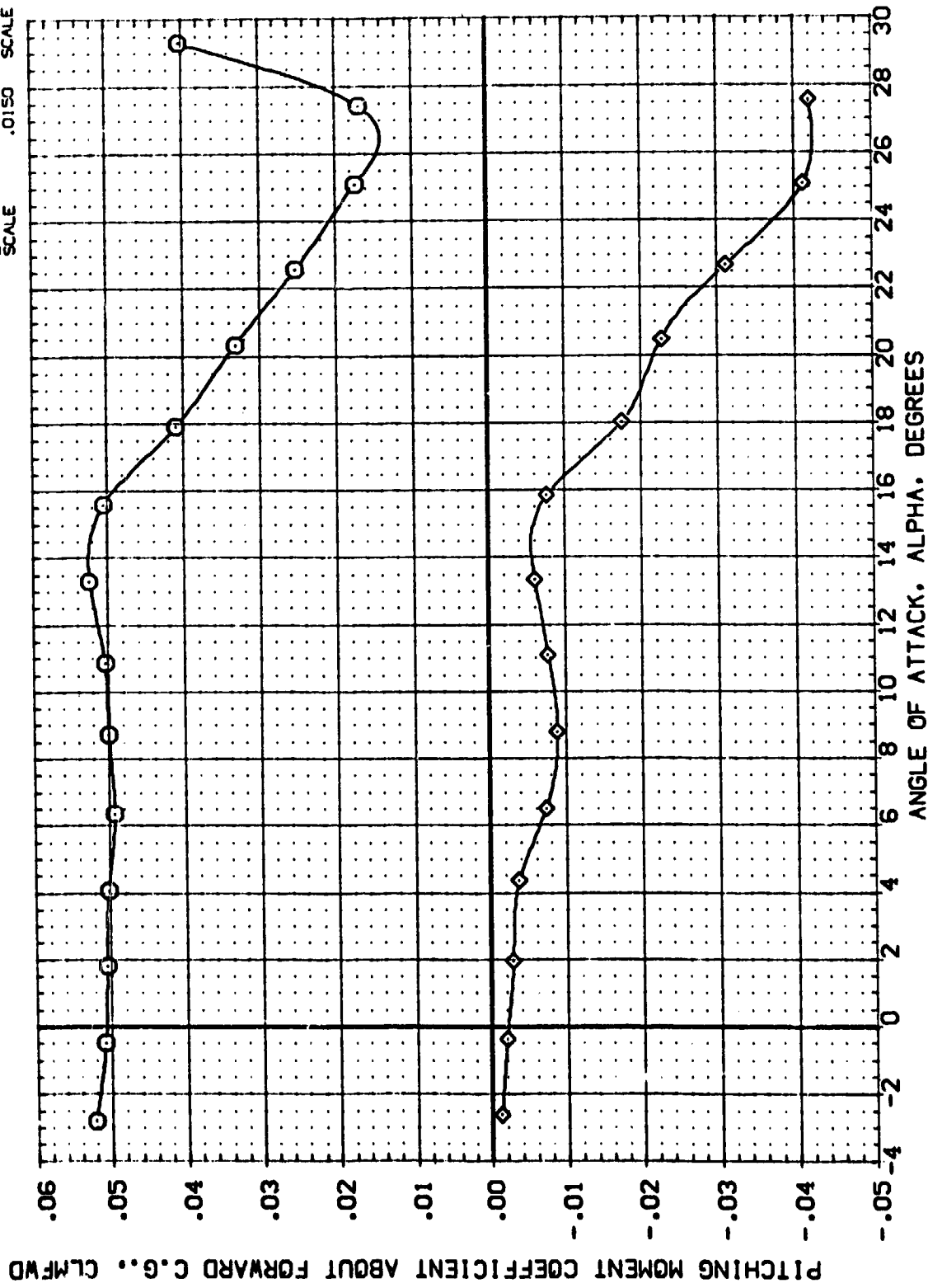


FIGURE 9 139B ORBITER BODY FLAP DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL	CONF IGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APPO02)	QA17.LTPT138.CRB 3.(B19CTFSM)(V107E23)(V7R5)	.000	-14.250	24.920	.000	SREF 87.1560 SQ. IN.
(APPO03)	DATA NOT AVAILABLE	.000	.000	24.920	.000	LREF 19.3545 INCHES
(APPO04)	QA17.LTPT138.CRB 3.(B19CTFSM)(V107E23)(V7R5)	.000	13.750	24.920	.000	BREF 14.0502 INCHES
						XMRP 12.5770 INCHES
						YMRP .0000 INCHES
						ZMRP .0000 INCHES
						SCALE .0150

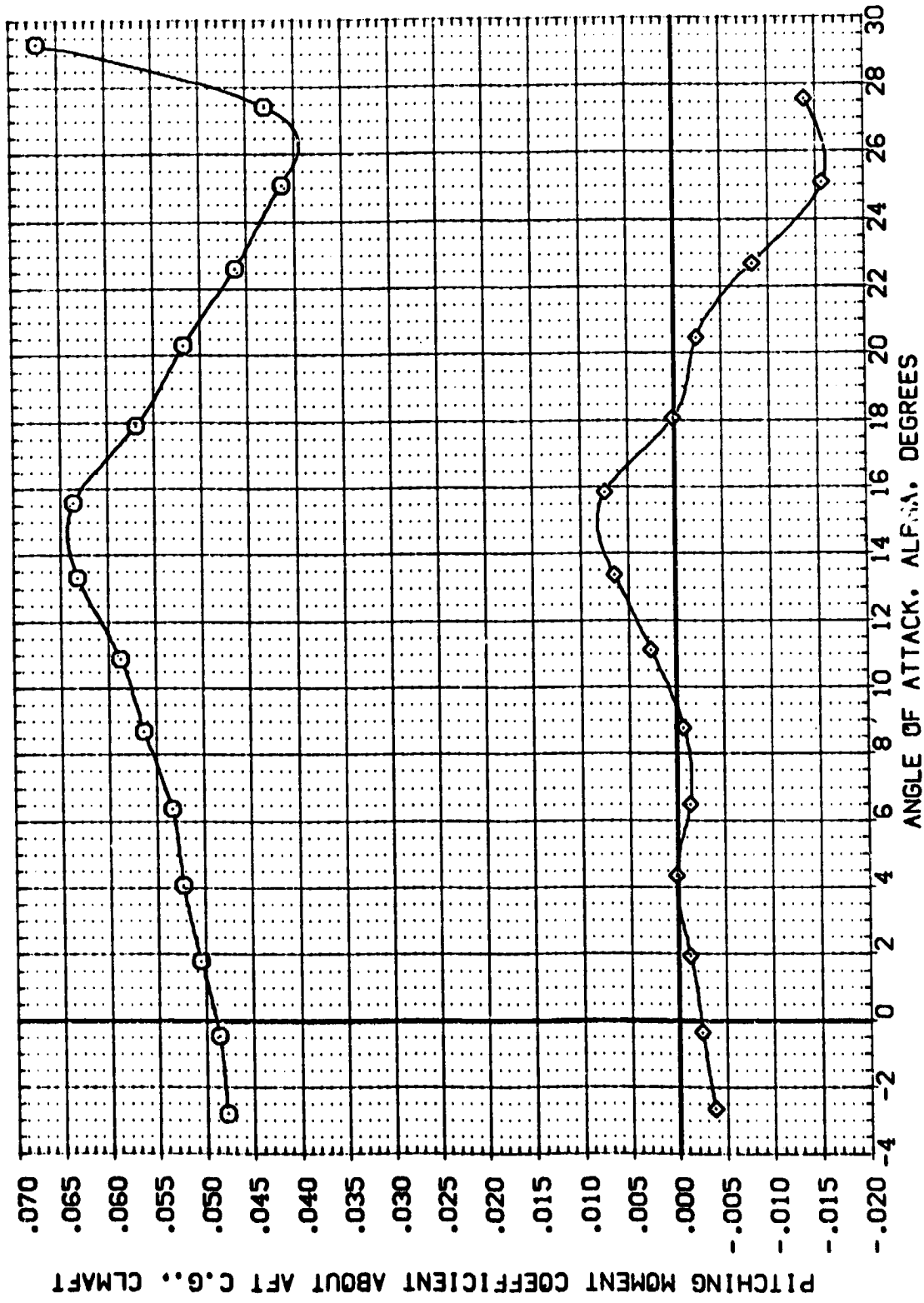


FIGURE 9 139B ORBITER BODY FLAP DEFLECTION EFFECTS

(A)RN/L = 10.00



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPDRBK	RDOOR	REFERENCE INFORMATION
(APPOD2)	DA17.LTPT138.058 3. (819C7F5M4)(V107E23)(V7R5)	.000	-14.250	24.920	.000	SREF 87.1560 SC.IN.
(APPOD3)	DATA NOT AVAILABLE	.000	.000	24.920	.000	LREF 19.3545 INC-ES
(APPOD5)	DA17.LTPT138.058 3. (819C7F5M4)(V107E23)(V7R5)	.000	13.750	24.920	.000	SREF 14.0502
						XTRP 12.5770 INC-ES
						YTRP 6.0000 INC-ES
						ZTRP 6.0000 INC-ES
						SCALE .0150

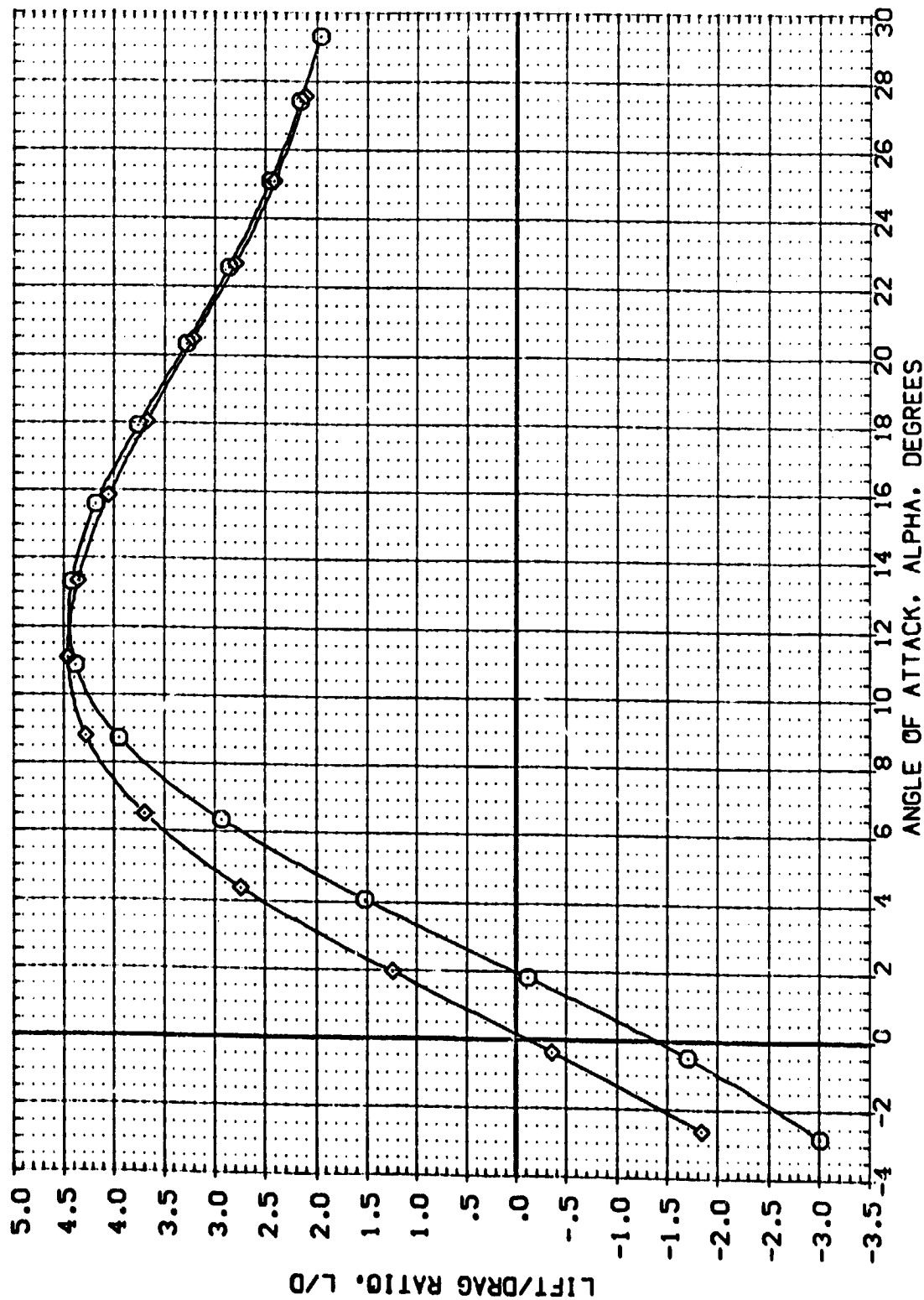


FIGURE 9 139B ORBITER BODY FLAP DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL	CONF	URATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APPO02)		DA17.LPT138.DS8 3.(B19C7F5M4)(V107E23)(V7R5)	.000	-14.250	24.920	.000	SREF 87.1560 SQ.IN.
(APPO06)		DATA NOT AVAILABLE	.000	.000	24.920	.000	LREF 19.3545 INCHES
(APPO05)		DA17.LPT138.DS8 3.(B19C7F5M4)(V107E23)(V7R5)	.000	13.750	24.920	.000	BREF 14.0502 INCHES
							XREF 12.5776 INCHES
							YREF .0000 INCHES
							ZREF 6.0000 INCHES
							SCALE .0150

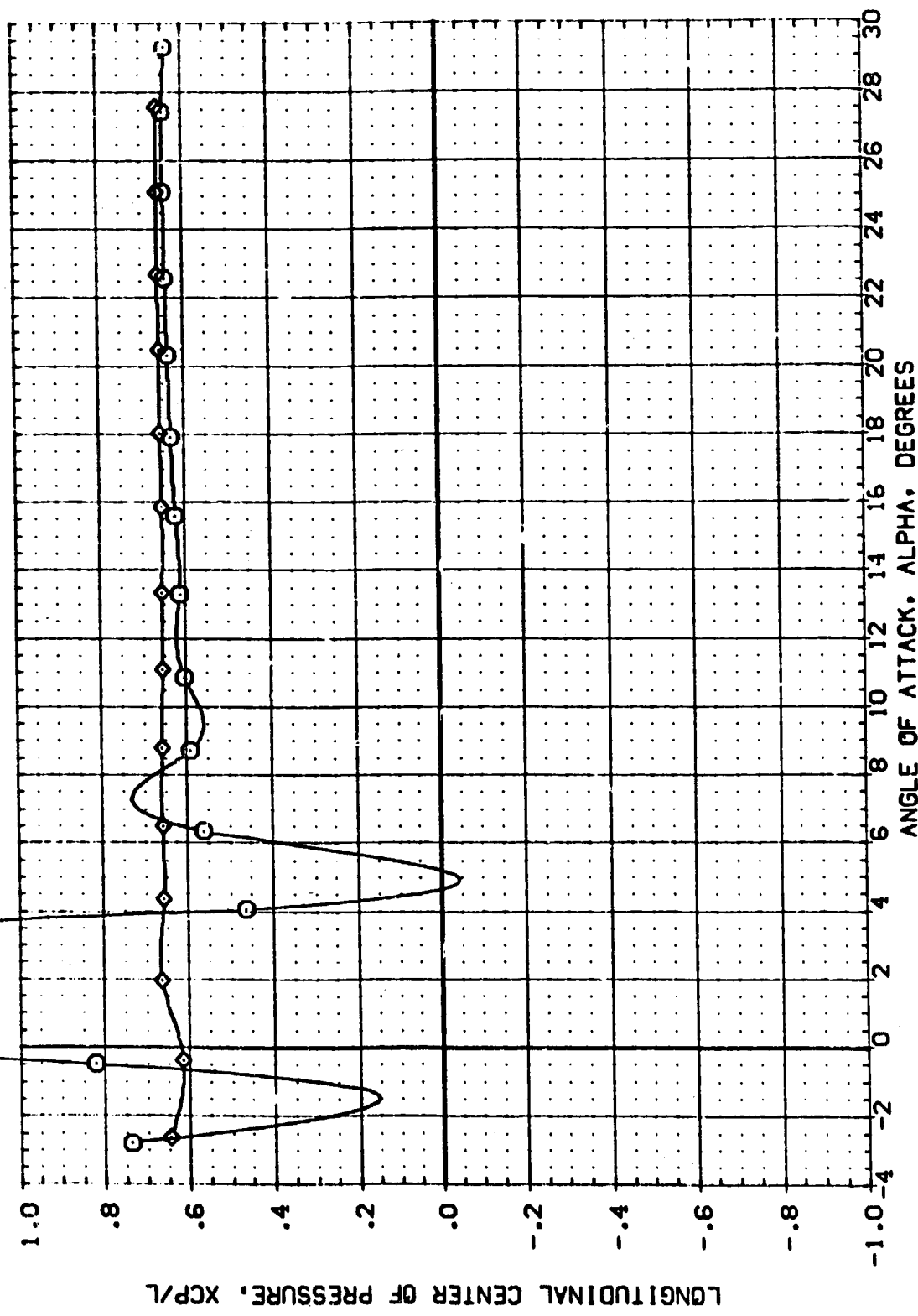


FIGURE 9 1398 ORBITER BODY FLAP DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (APPROX) CA17.LTPT138.DRB 3.(B19CF5M4)(V107E23)(V7RS)
 (APPROX) DATA NOT AVAILABLE
 (APPROX) CA17.LTPT138.DRB 3.(B19CF5M4)(V107E23)(V7RS)

ELEVTR BOFLAP SPOBRK RUDDER
 .000 -14.250 24.920 .000
 .000 .000 24.920 .000
 .000 13.750 24.920 .000

REFERENCE INFORMATION
 SREF 87.1550 SQ. IN.
 LREF 19.3545 INCHES
 BREF 14.6502 INCHES
 XPRP 12.5770 INCHES
 YPRP .0000 INCHES
 ZPRP 6.0000 INCHES
 SCALE 0.0150

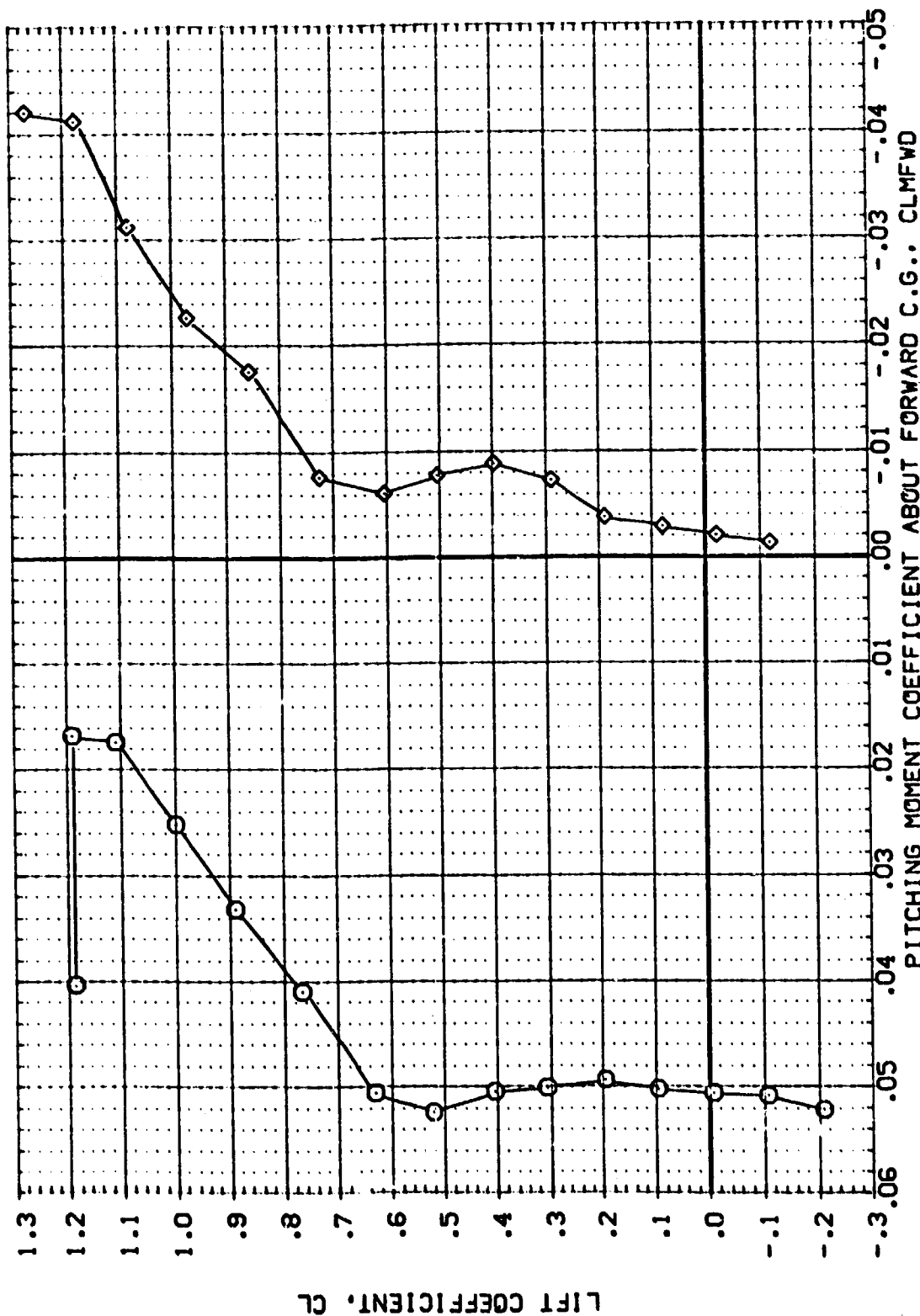


FIGURE 9 1398 ORBITER BODY FLAP DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (APPO02) 0A17 LPT138.DRB 3.(B1SC7FSM)(V107E23)(V7RS)
 (APPO03) DATA NOT AVAILABLE
 (APPO05) 0A17 LPT138.DRB 3.(B1SC7FSM)(V107E23)(V7RS)

ELEVTR BOFLAP SPDRK RUDDER
 .000 -14.250 .000 .000
 .000 .000 24.920 24.920
 .000 13.750 .000 .000

REFERENCE INFORMATION
 SREF 87.1560 SO.IN.
 LREF 19.3545 INCHES
 BREF 14.0502 INCHES
 XPRP 12.5770 INCHES
 YPRP 6.0000 INCHES
 ZPRP 6.0000 INCHES
 SCALE .0150

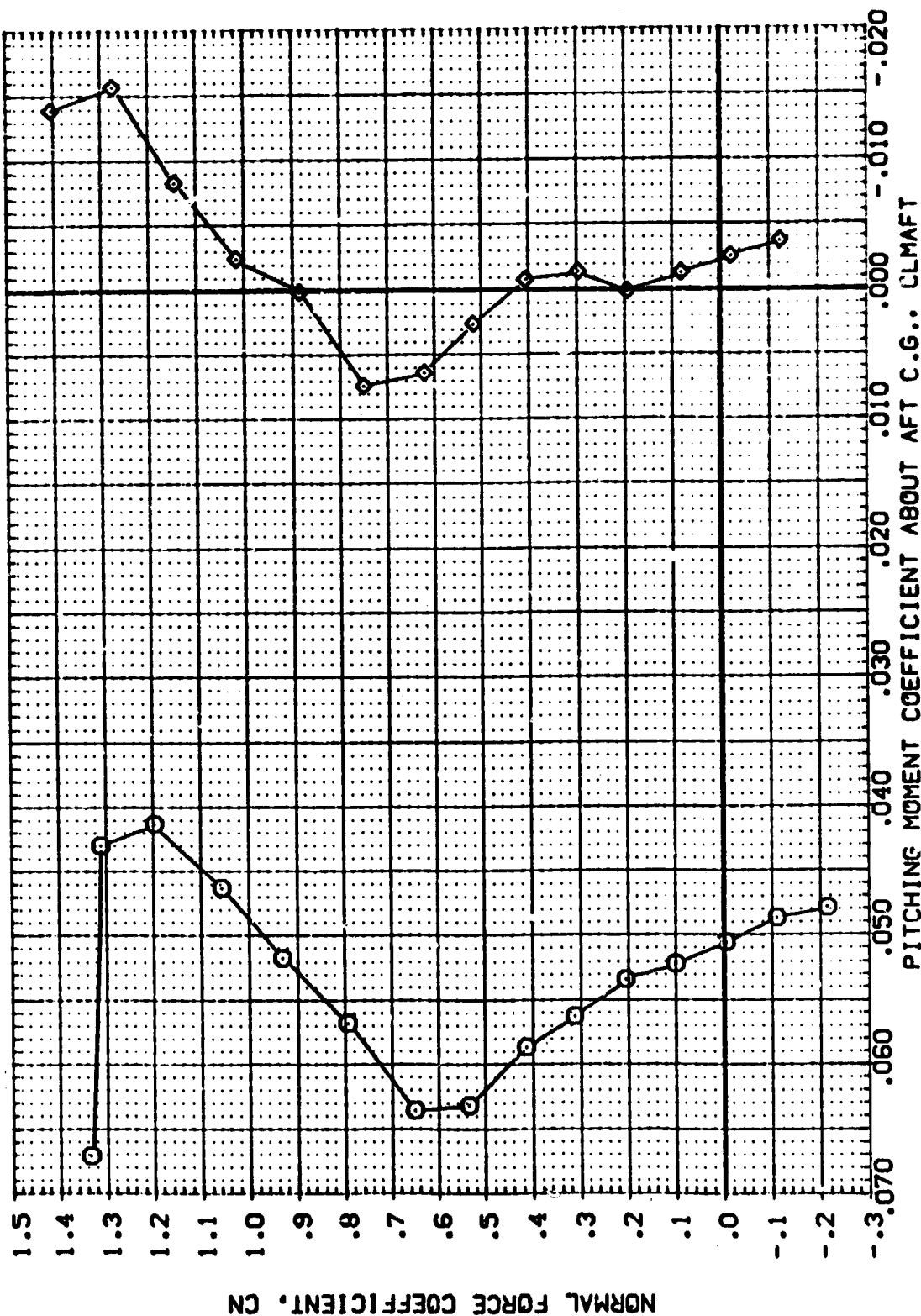


FIGURE 9 139B ORBITER BODY FLAP DEFLECTION EFFECTS

(A)RN/L = 10.00

0A17.LTPT138.ORB 3.(019CTF544)(V10TE23)(V7RS)	DATA NOT AVAILABLE
0A17.LTPT138.ORB 3.(019CTF544)(V10TE23)(V7RS)	

ELEVTR	BOFLAP	SPDRBK	RDOOR	REFERENCE INFORMATION	
.000	-14.250	24.920	.000	SREF	87.1560
.000	.000	24.920	.000	LREF	19.3545
.000	.000	24.920	.000	SREF	14.0502
.000	13.750	24.920	.000	XREF	12.5770
				YREF	.0000
				ZREF	6.0000
				SCALE	.0150

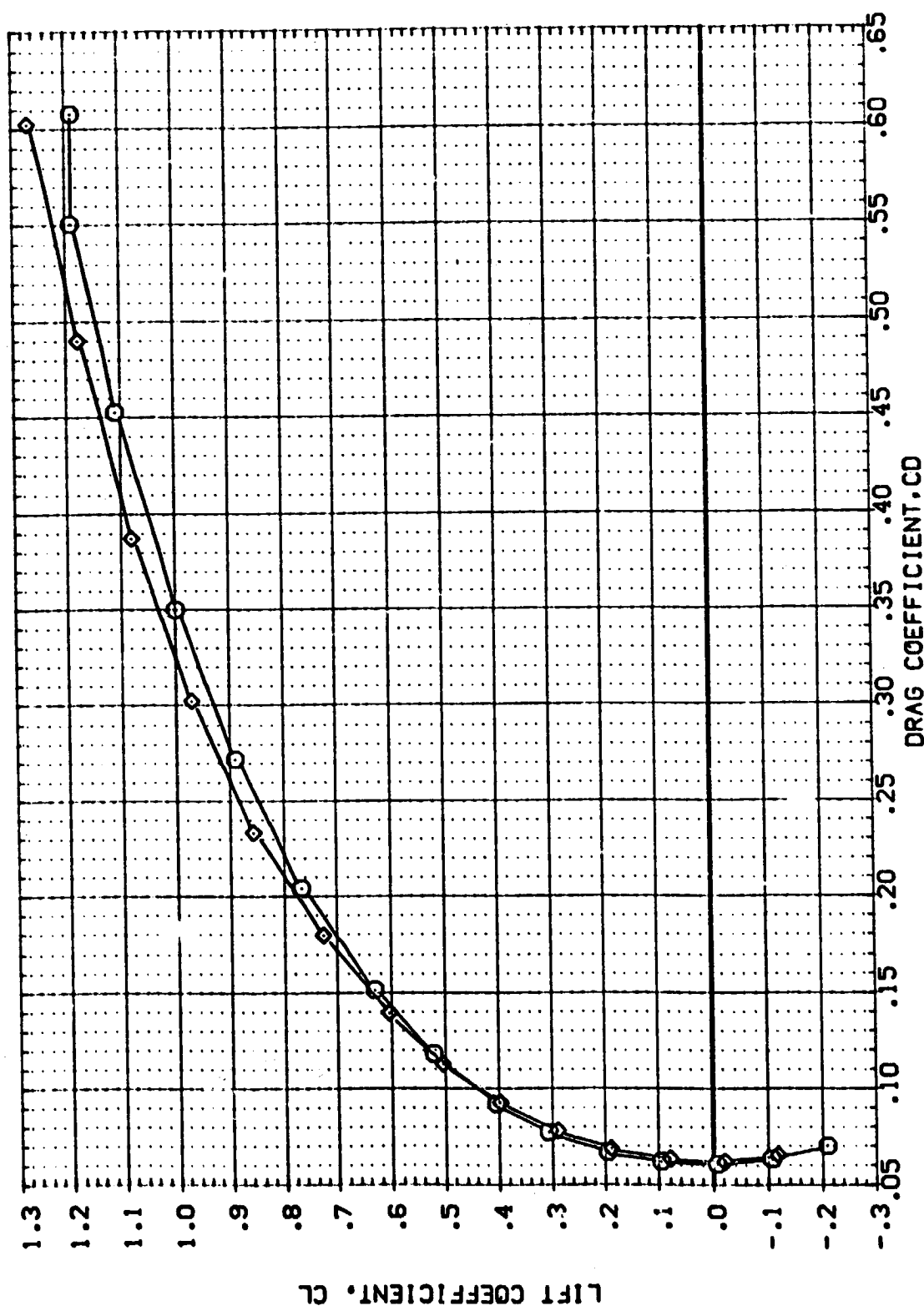


FIGURE 9 139B ORBITER BODY FLAP DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL: (RPP002) (RPP005) (RPP005)
 CONFIGURATION DESCRIPTION: DA17.LTPT138.DR8 3.(B19CT75M4)(V107E23)(V7R5)
 DATA NOT AVAILABLE: DA17.LTPT138.DR8 3.(B19CT75M4)(V107E23)(V7R5)
 ELEV: .000 .000 .000
 BOFLAP: -14.250 .000 13.750
 SPDSBK: 24.920 24.920 24.920
 RUDDER: .000 .000 .000
 REFERENCE INFORMATION: SREF 87.1560 50.15 INCHES
 LREF 19.3545 INCHES
 BREF 14.0502 INCHES
 YRPP 12.5770 INCHES
 ZRPP 6.0000 INCHES
 SCALE .0150 INCHES

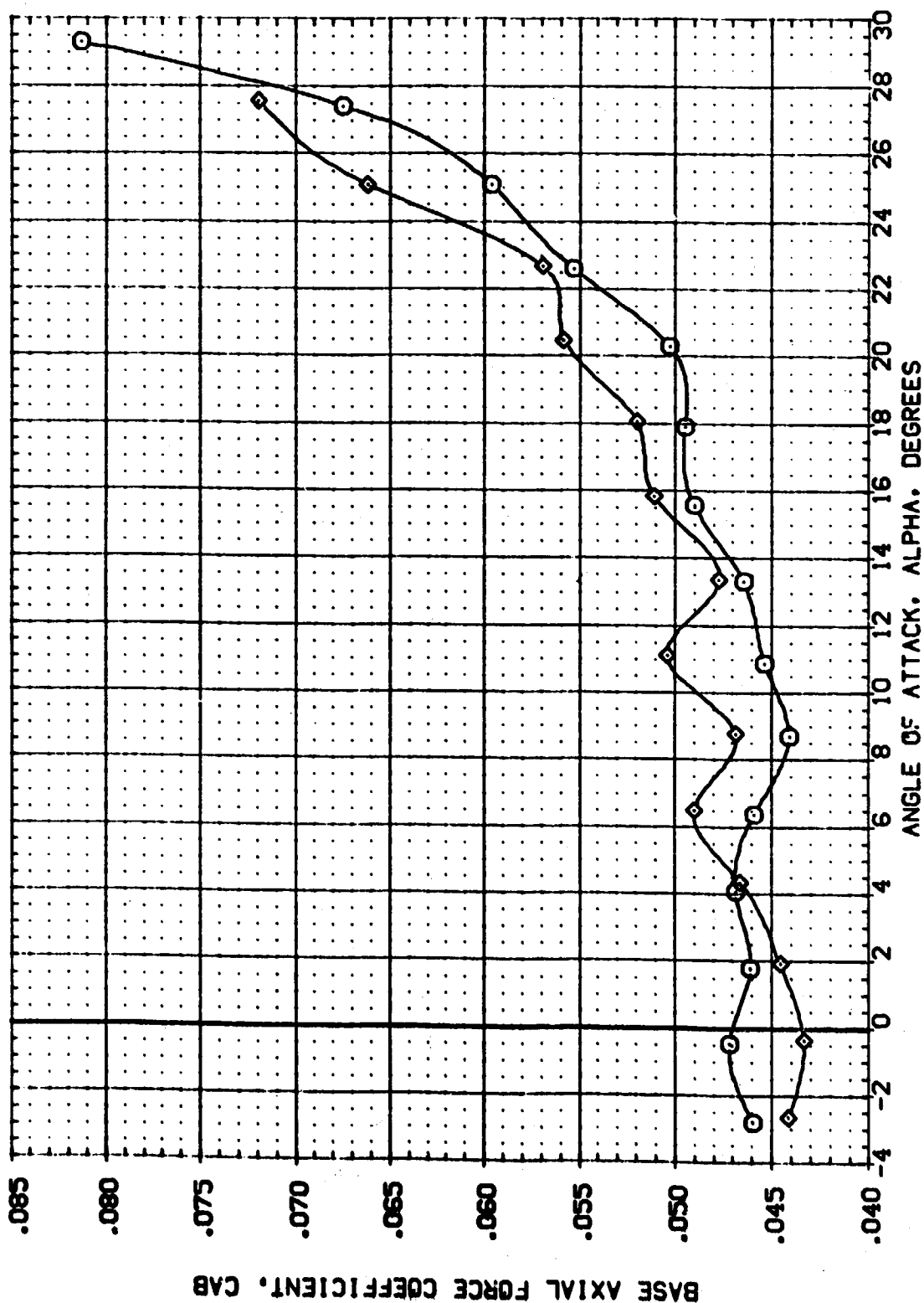


FIGURE 9 1398 ORBITER BODY FLAP DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DEF LAMP	ELEVON	SPOBRK	RUDDER	REFERENCE INFORMATION
(UPPODS)	GA17.LTPT138.088 3.(81SC7534)(V107E23)(V7RS)	14.250	.000	24.920	.000	SREF 87.1550 SO IN.
(UPPODS)	GA17.LTPT138.088 3.(81SC7534)(V107E23)(V7RS)	28.000	.000	24.920	.000	LREF 19.3545 INCHES
						BREF 14.0502 INCHES
						XMRP 12.5770 INCHES
						YMRP .0000 INCHES
						ZMRP 6.0000 INCHES
						SCALE .0150

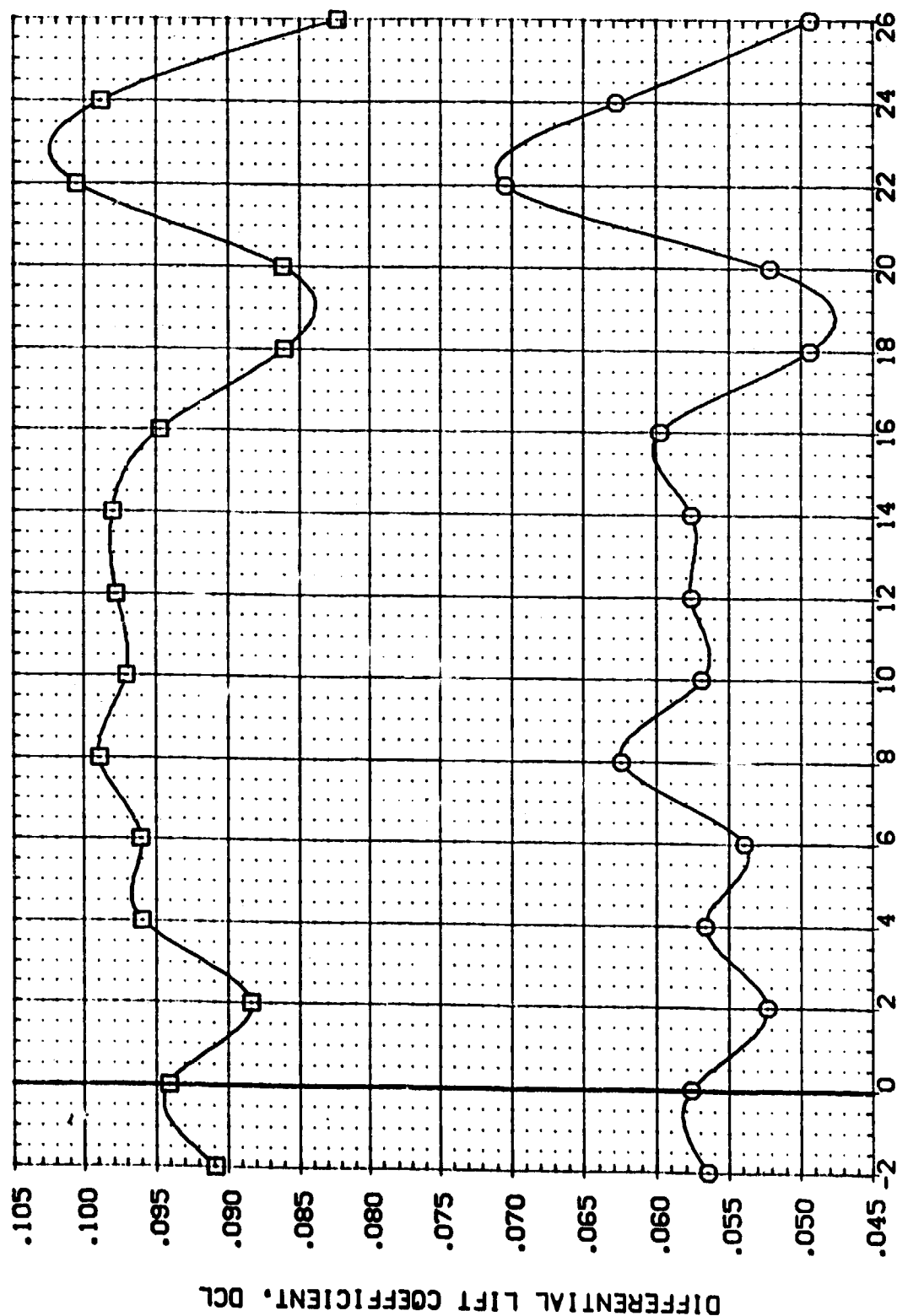


FIGURE 10 139B ORBITER BODY FLAP DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL: (HPP005) (HPP005)

CONFIGURATION DESCRIPTION: CA17.LTPT138.078 3.(B19C7F5M4)(V107E23)(V7R5) CA17.LTPT138.078 3.(B19C7F5M4)(V107E23)(V7R5)

DISFLAP: 14.250 28.000

ELEVON: .000 .000

SPORK: 24.920 24.920

RUDDER: .000 .000

REFERENCE INFORMATION:

REF	INCHES	INCHES
87.1260	80.1260	80.1260
19.3545	19.3545	19.3545
14.0502	14.0502	14.0502
12.5770	12.5770	12.5770
.0000	.0000	.0000
6.0000	6.0000	6.0000
.0150	.0150	.0150

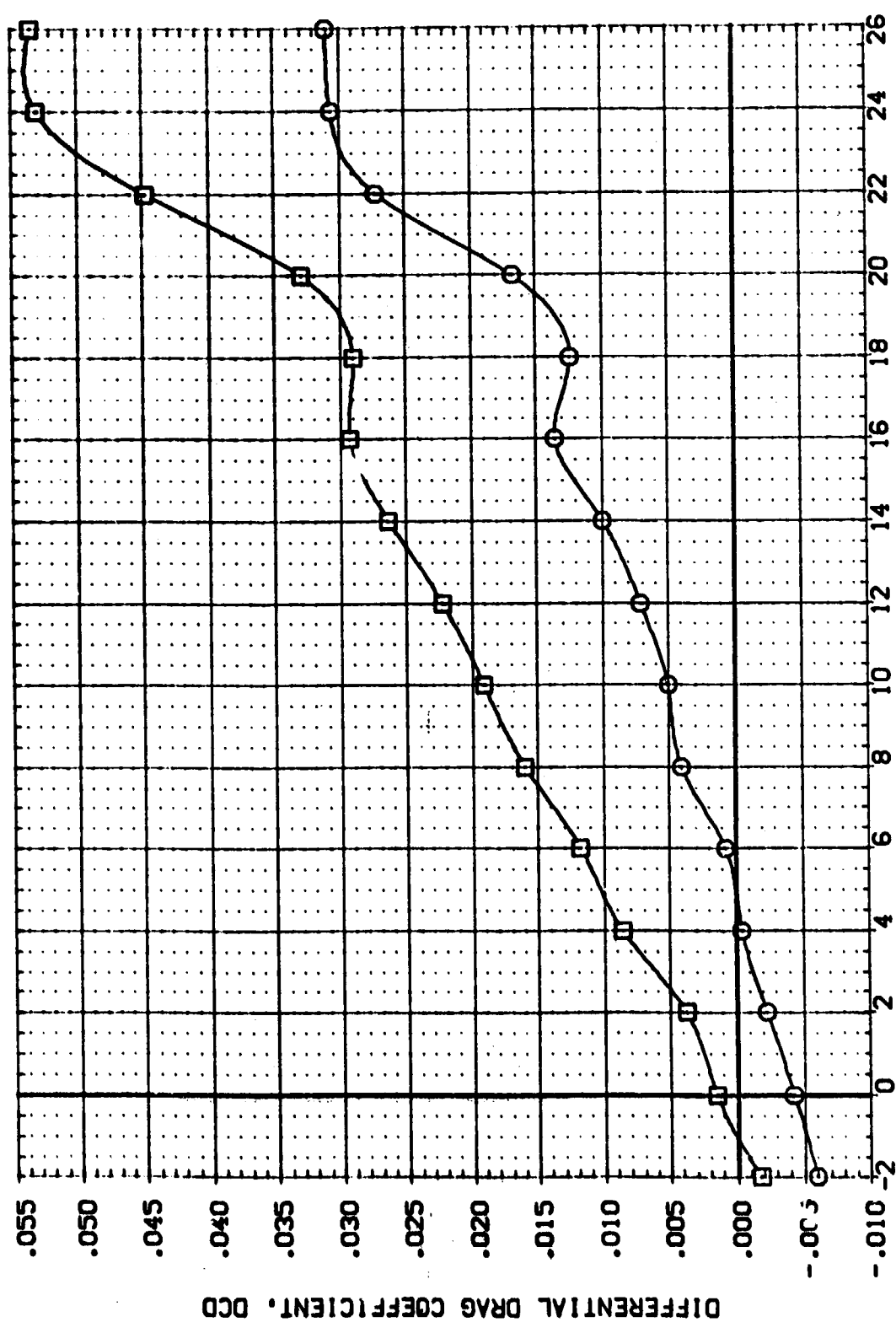


FIGURE 10 139B ORBITER BODY FLAP DEFLECTION INCREMENTAL EFFECTS

CAJRN/L = 4.70

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		DEF LAR		ELEVON		SPDRBK		RUDDER		REFERENCE INFORMATION	
(HPP005)	(HPP005)	DA17.LTPT136.DRB	3.(B19C7F5M4)(V107E23)(V7R5)	14.250	.000	.000	24.920	.000	.000	SREF	87.1560	SQ.IN.	
		DA17.LTPT136.DRB	3.(B19C7F5M4)(V107E23)(V7R5)	28.000	.000	.000	24.920	.000	.000	LREF	19.3545	INCHES	
										SREF	14.0502	INCHES	
										XTRP	12.5770	INCHES	
										YTRP	.0000	INCHES	
										ZTRP	6.0000	INCHES	
										SCALE	.0150	SCALE	

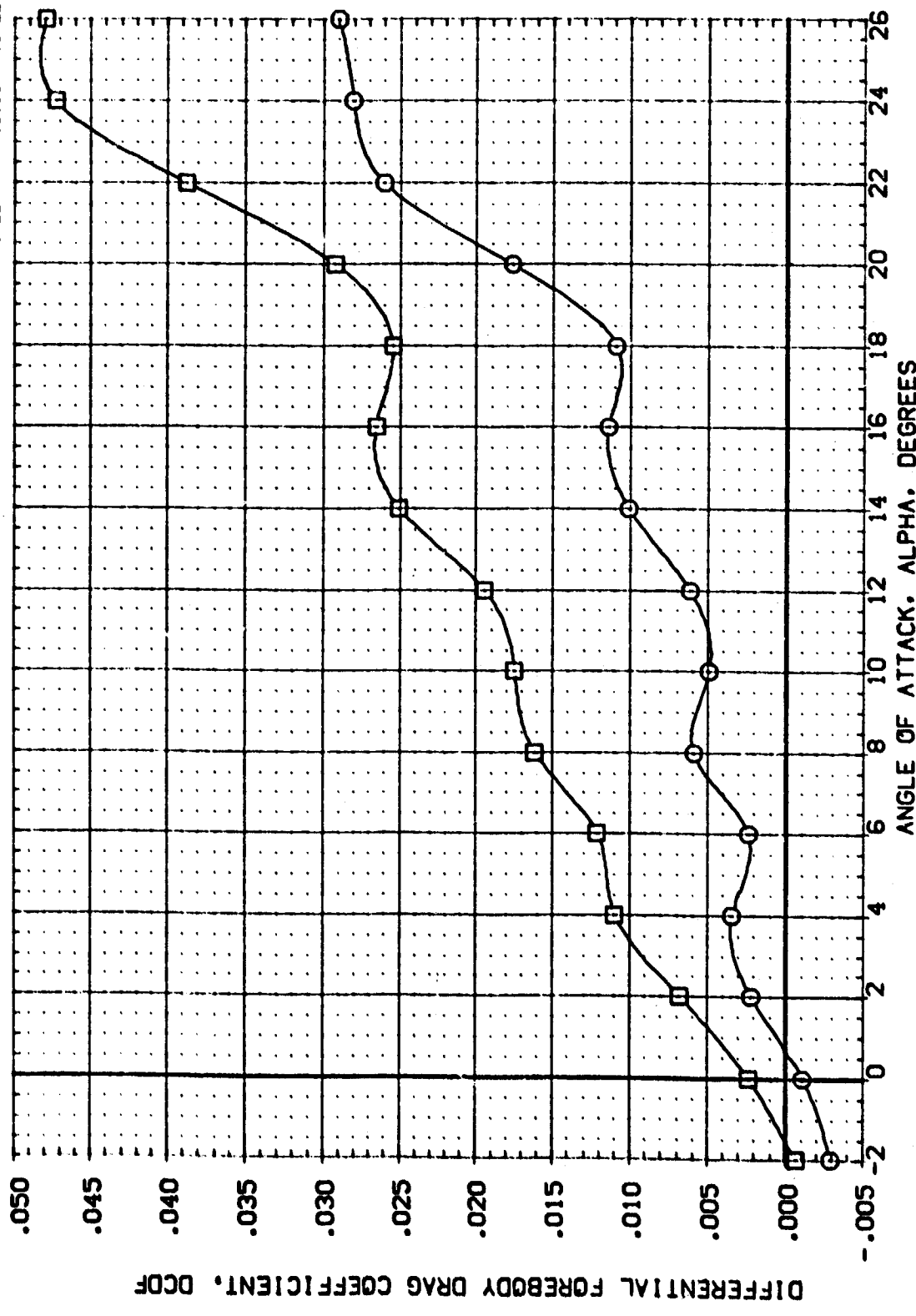


FIGURE 10 1398 ORBITER BODY FLAP DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (MPODS) DA17-LTPT138-098 3- (8)SC75344 (V107E23) (V7R5)
 (MPODS) DA17-LTPT138-098 3- (8)SC75344 (V107E23) (V7R5)

DEFLAP ELEVON SPODBK RUDDER
 14.250 .000 24.520 .000
 28.000 .000 24.520 .000

REFERENCE INFORMATION
 SREF 87.1560 50. IN.
 LREF 19.3545 INCHES
 BREF 14.0502 INCHES
 XREF 12.5770 INCHES
 YREF .0000 INCHES
 ZREF .0000 INCHES
 SCALE 6.0150 INCHES
 SCALE .0150 INCHES

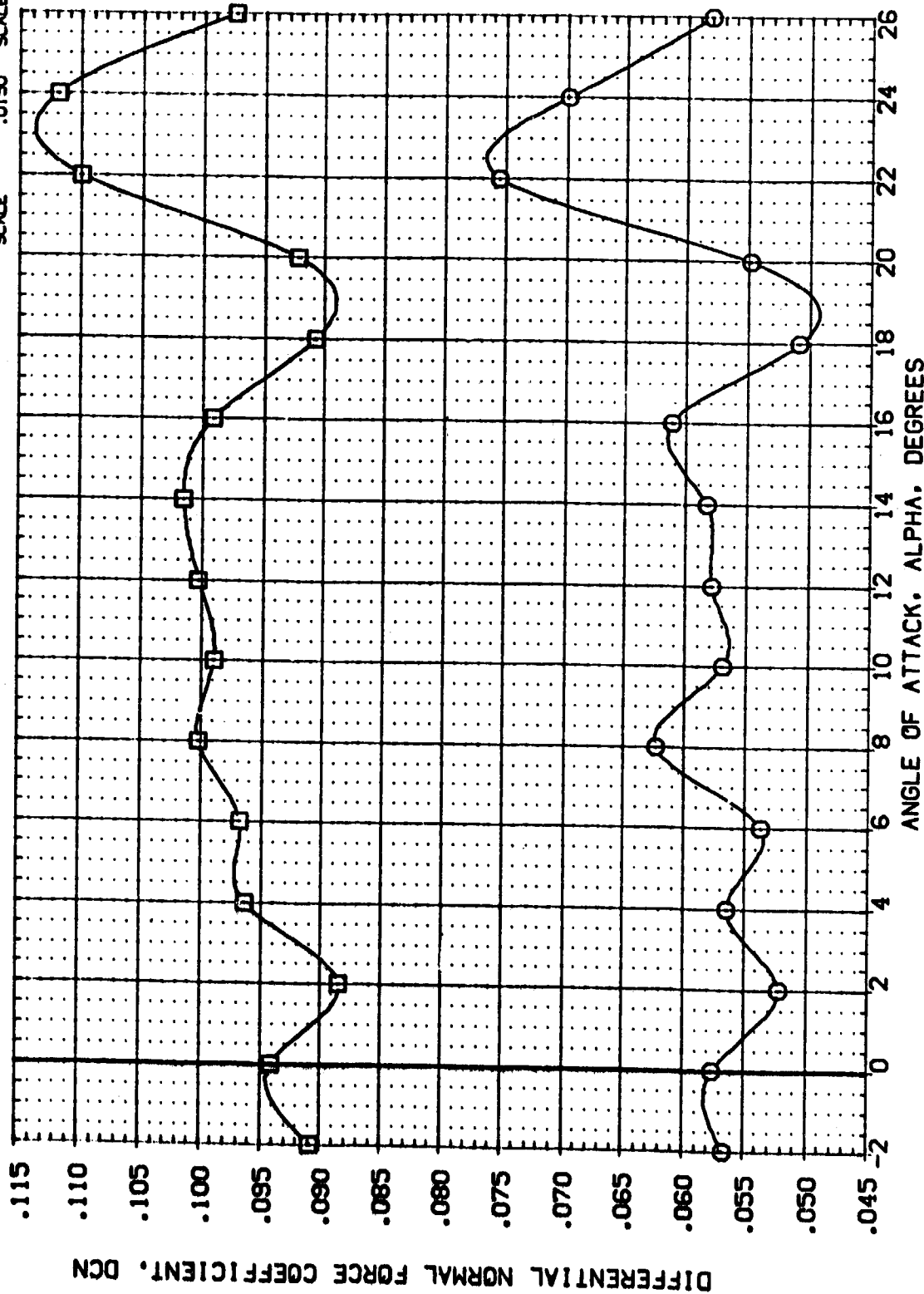


FIGURE 10 139B ORBITER BODY FLAP DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL CONFIGURATION DESCRIPTION DBFLAP ELEVON SPOBRK RUDDER REFERENCE INFORMATION

(HPP005)	DA17.LTPT138.058 3.(B19C7FS44)(V107E23)(V7K5)	14.250	.000	24.920	.000	SREF	87.1550	50. IN.
(HPP005)	DA17.LTPT138.058 3.(B19C7FS44)(V107E23)(V7K5)	28.000	.000	24.920	.000	LREF	19.3545	INCHES
						BREF	14.0502	INCHES
						XMRP	12.5770	INCHES
						YMRP	.0000	INCHES
						ZMRP	6.0000	INCHES
						SCALE	.0150	SCALE

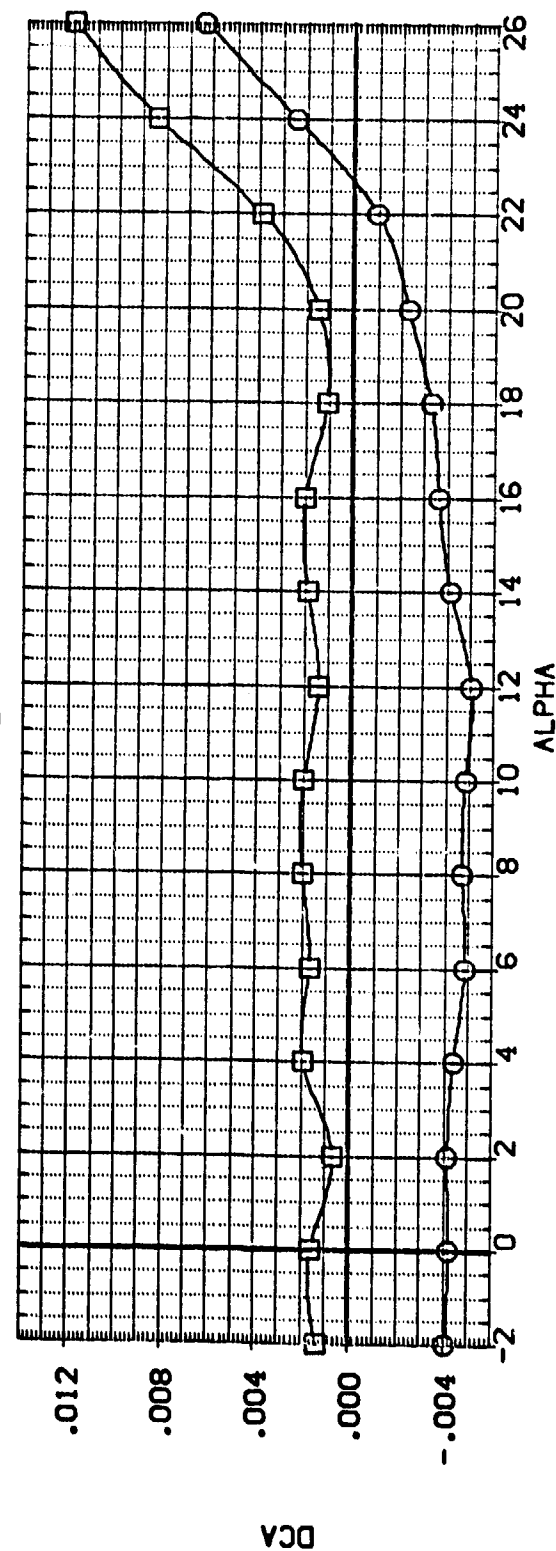
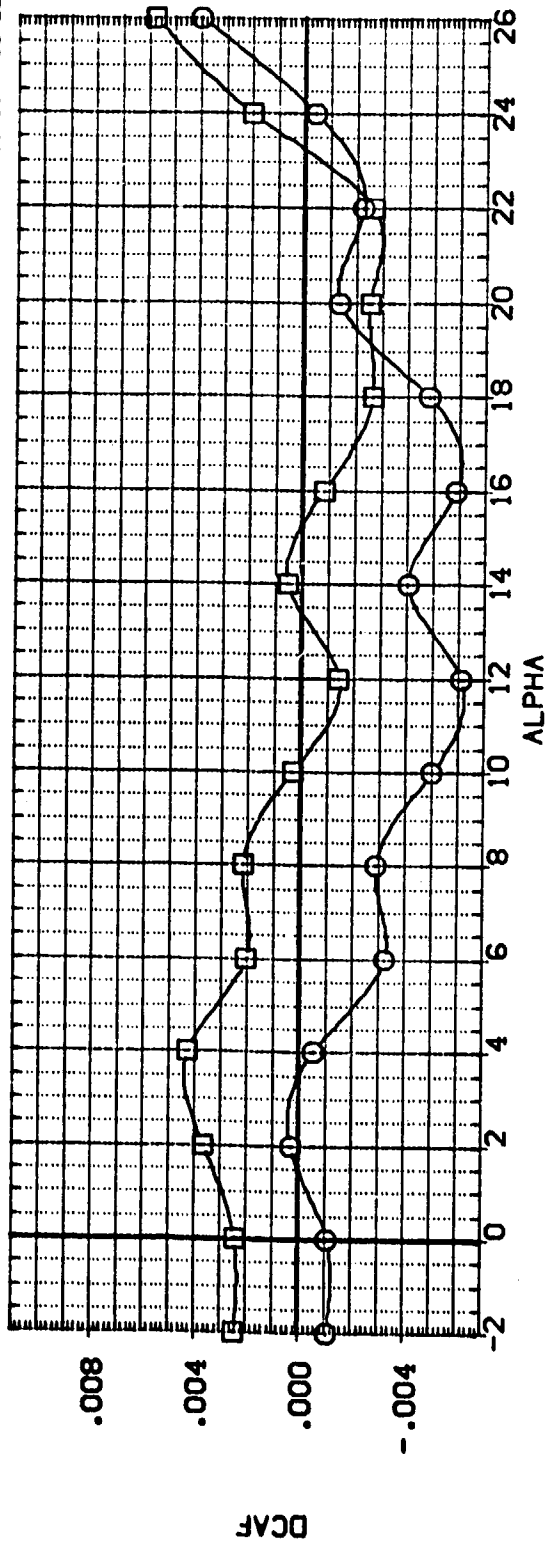



FIGURE 10 1398 ORBITER BODY FLAP DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL:  CONFIGURATION DESCRIPTION: 0A17.L1PT138.088 3.(819C7F5H4)(V107E23)(V7R5)
 (HPC005) (HPC005) 0A17.L1PT138.088 3.(819C7F5H4)(V107E23)(V7R5)

DBFLAP: 14.250 28.000
 ELEVON: .000 .000
 SPOBRK: 24.920 24.920
 RUDDER: .000 .000

REFERENCE INFORMATION:
 SREF: 87.1560 50.1N.
 LREF: 19.3545 INCHES
 BREF: 14.0502 INCHES
 XMRP: 12.5770 INCHES
 YMRP: .0000 INCHES
 ZMRP: 6.0000 INCHES
 SCALE: .0150

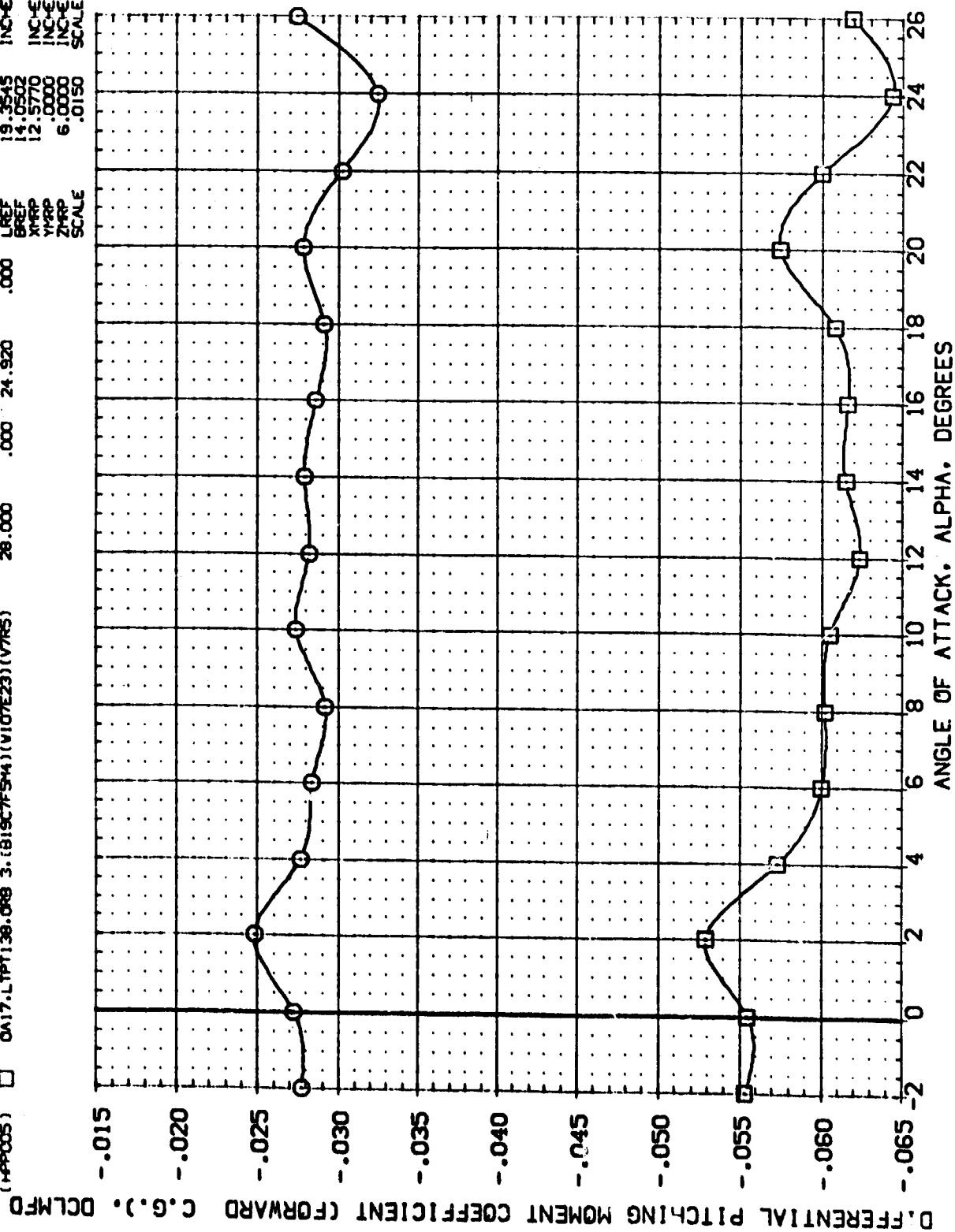


FIGURE 10 139B ORBITER BODY FLAP DEFLECTION INCREMENTAL EFFECTS

(AJRN/L = 4.70



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DBCLAP	ELEVON	SPDRK	RUDDER	REFERENCE INFORMATION
(HPP005)	CA17.LTPT138.0R8 3.(B19C7F5M4)(V107E23)(V7R5)	14.250	.000	24.920	.000	SREF 87.1560 50. IN.
(HPP005)	CA17.LTPT138.0R8 3.(B19C7F5M4)(V107E23)(V7R5)	28.000	.000	24.920	.000	LREF 19.3545 INCHES
						BREF 14.0502 INCHES
						YMRP 12.5770 INCHES
						ZMRP 6.0000 INCHES
						SCALE .0150 INCHES

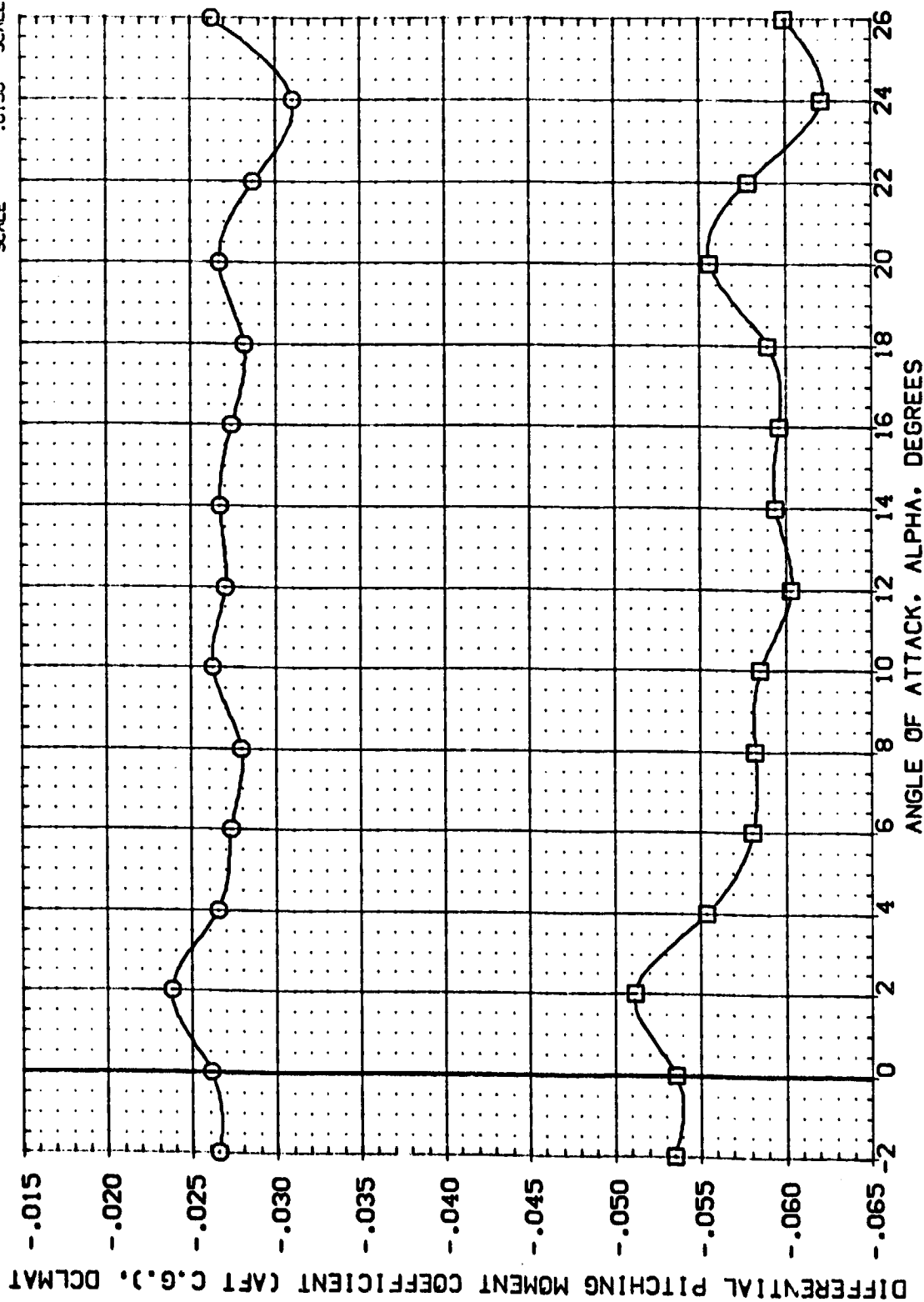


FIGURE 10 139B ORBITER BODY FLAP DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DEF LAP	ELEVON	SPOBRK	RUDDER	REFERENCE INFORMATION
(FPODS)	QAI7-LTPT138.068 3. (B19C7F5M4)(V107E23)(V7R5)	14.250	.000	24.920	.000	SREF 87.1560 SO. IN.
(FPODS)	QAI7-LTPT138.068 3. (B19C7F5M4)(V107E23)(V7R5)	28.000	.000	24.920	.000	LREF 19.3545 INCHES
						BREF 12.5770 INCHES
						XMRP .0000 INCHES
						YMRP 6.0000 INCHES
						ZMRP .0150 SCALE

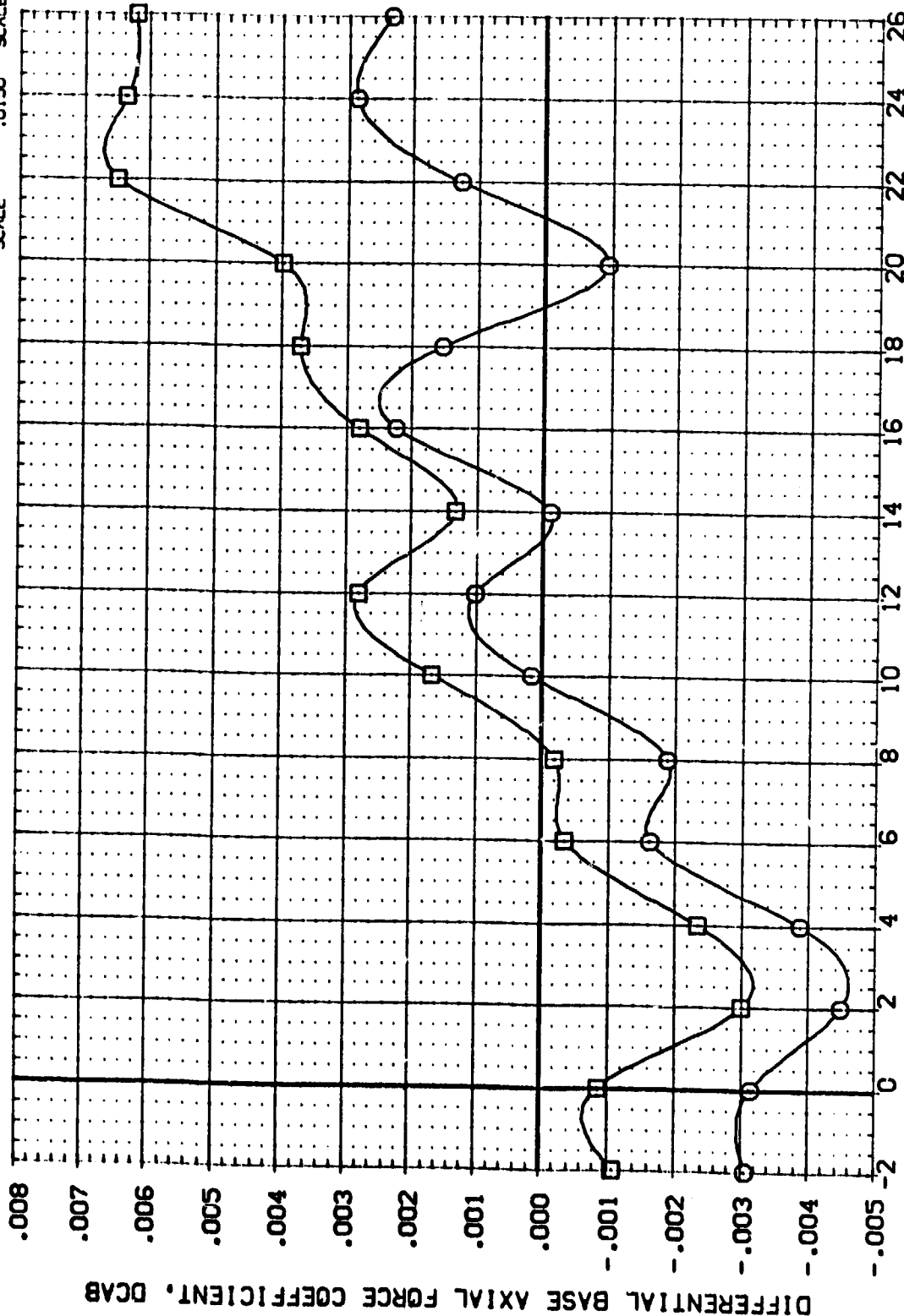


FIGURE 10 139B ORBITER BODY FLAP DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 4.70



DATA SET SYMBOL CONFIGURATION DESCRIPTION DBFLAP ELEVON SPOBRK RUDDER REFERENCE INFORMATION

[HPPCCS]	CA17.LTPT:38.0R8 3.(B1SC7FSM4)(V107E23)(V7R5)	14.250	.000	24.920	.000	SREF	87.1560	50.1N.	
[HPPCCS]	CA17.LTPT:38.0R8 3.(B1SC7FSM4)(V107E23)(V7R5)	28.000	.000	24.920	.000	LREF	19.3645	INCHES	
						BREF	14.0502	INCHES	
						XVRP	12.5770	INCHES	
						YVRP	.0000	INCHES	
						ZVRP	6.0000	INCHES	
						SCALE	.0150	SCALE	

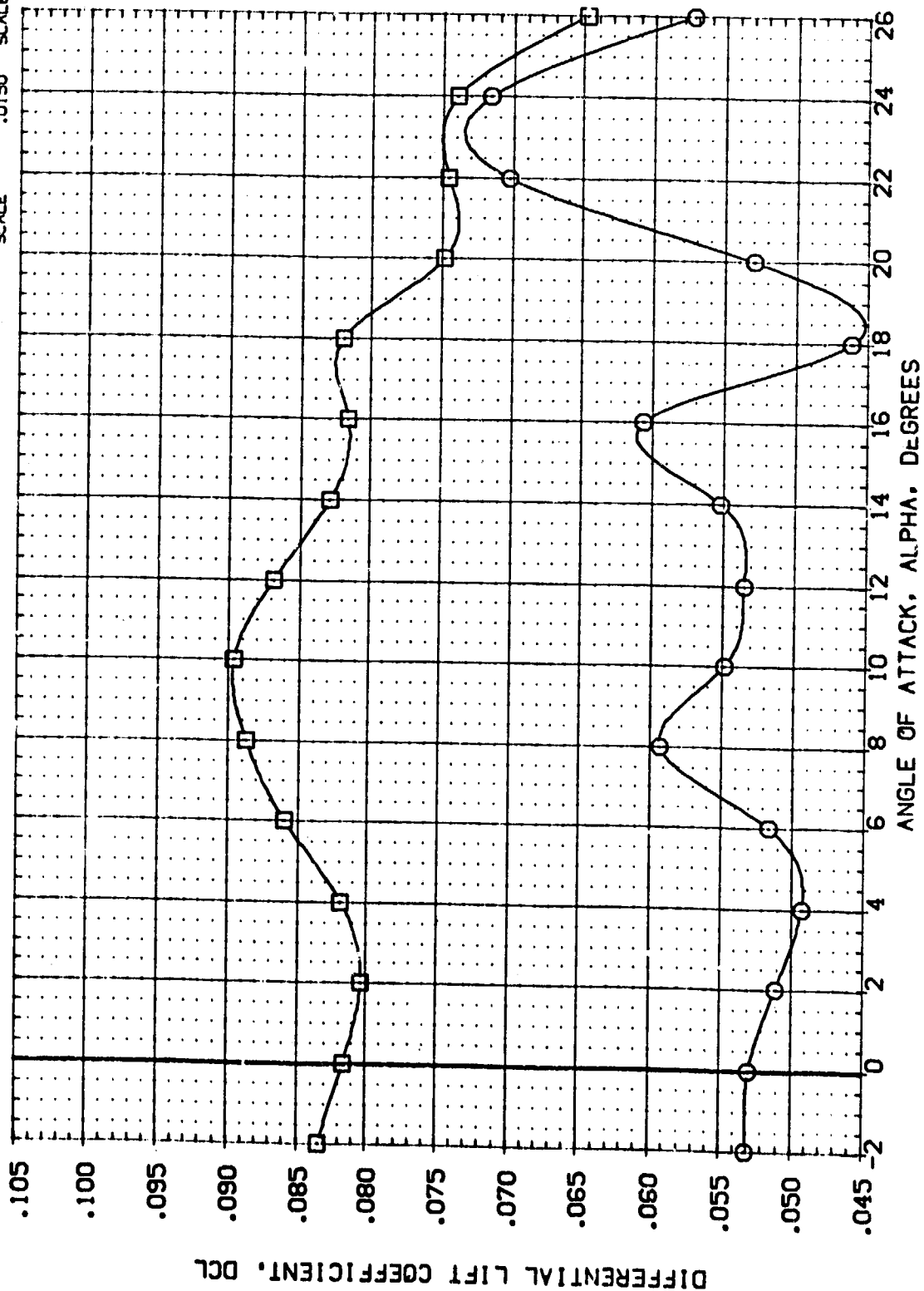


FIGURE 10 1398 ORBITER BODY FLAP DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(MPC06) 0A17,LTPT138,CRB 3.(B1SC7FSM4)(V107E23)(VTRS)
(MPC05) 0A17,LTPT138,CRB 3.(B1SC7FSM4)(V107E23)(VTRS)

DBFLAP ELEVON SPDRBK RUDDER

14.250 .000 24.920 .000
28.000 .000 24.920 .000

REFERENCE INFORMATION

SREF 87.1560 SQ. IN.
LREF 19.3545 INCHES
BREF 14.0502 INCHES
XTRP 12.5770 INCHES
YTRP .0000 INCHES
ZTRP 6.0000 INCHES
SCALE .0150 SCALE

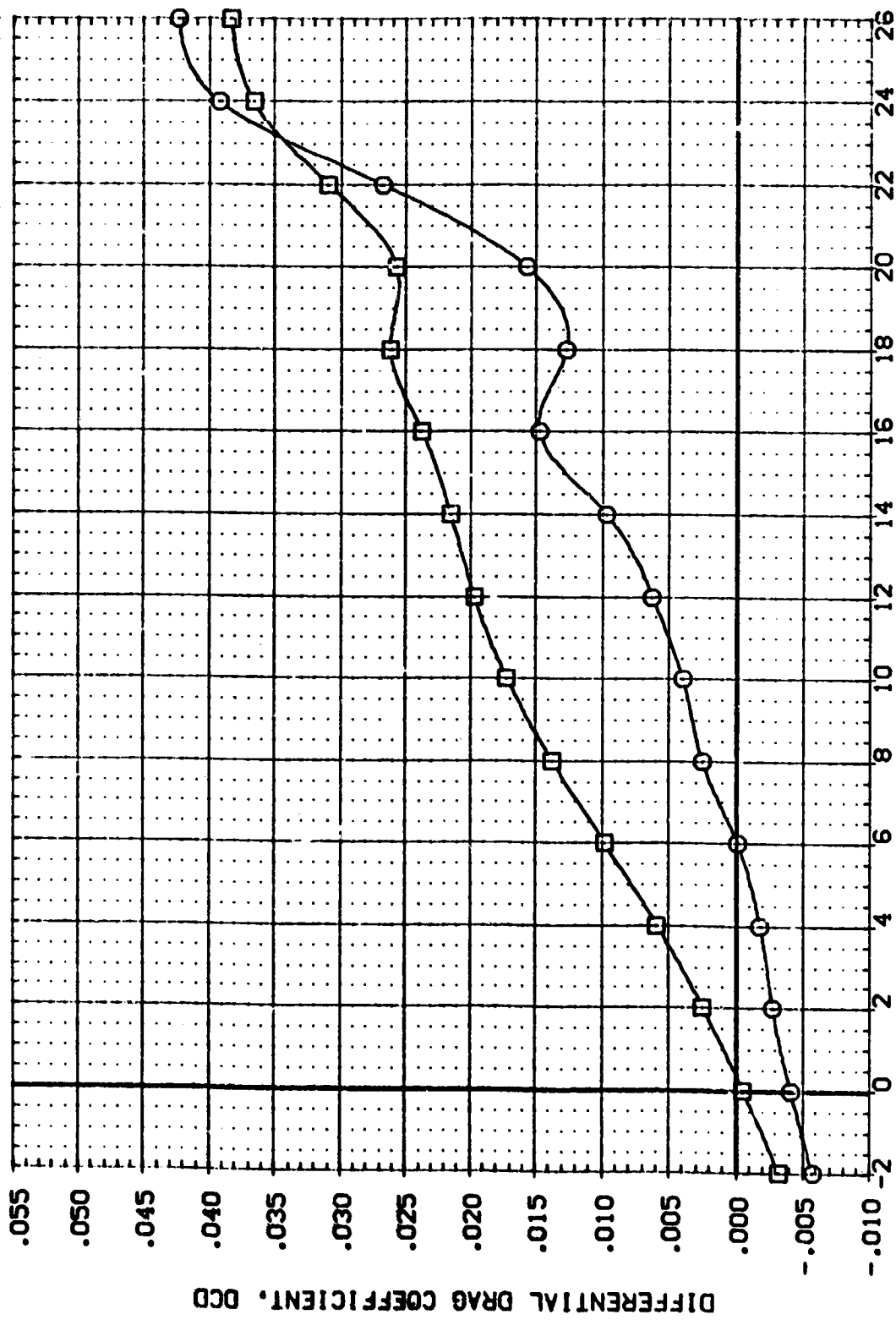


FIGURE 10 139B ORBITER BODY FLAP DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		DEFAP		ELEVON	SPOBRK	RUDER	REFERENCE INFORMATION	
(HPP005)	CA17.LTPT138.ORB 3.(B1SC7FSM4)(V107E23)(V7RS)	14.250	.000	.000	24.920	.000	SREF	87.1560	SO.IN.	
(HPP005)	CA17.LTPT138.ORB 3.(B1SC7FSM4)(V107E23)(V7RS)	28.000	.000	.000	24.920	.000	LREF	19.3545	INCHES	
							BREF	14.0502	INCHES	
							XMRP	12.5770	INCHES	
							YMRP	.0000	INCHES	
							ZMRP	6.0000	INCHES	
							SCALE	.0150	SCALE	

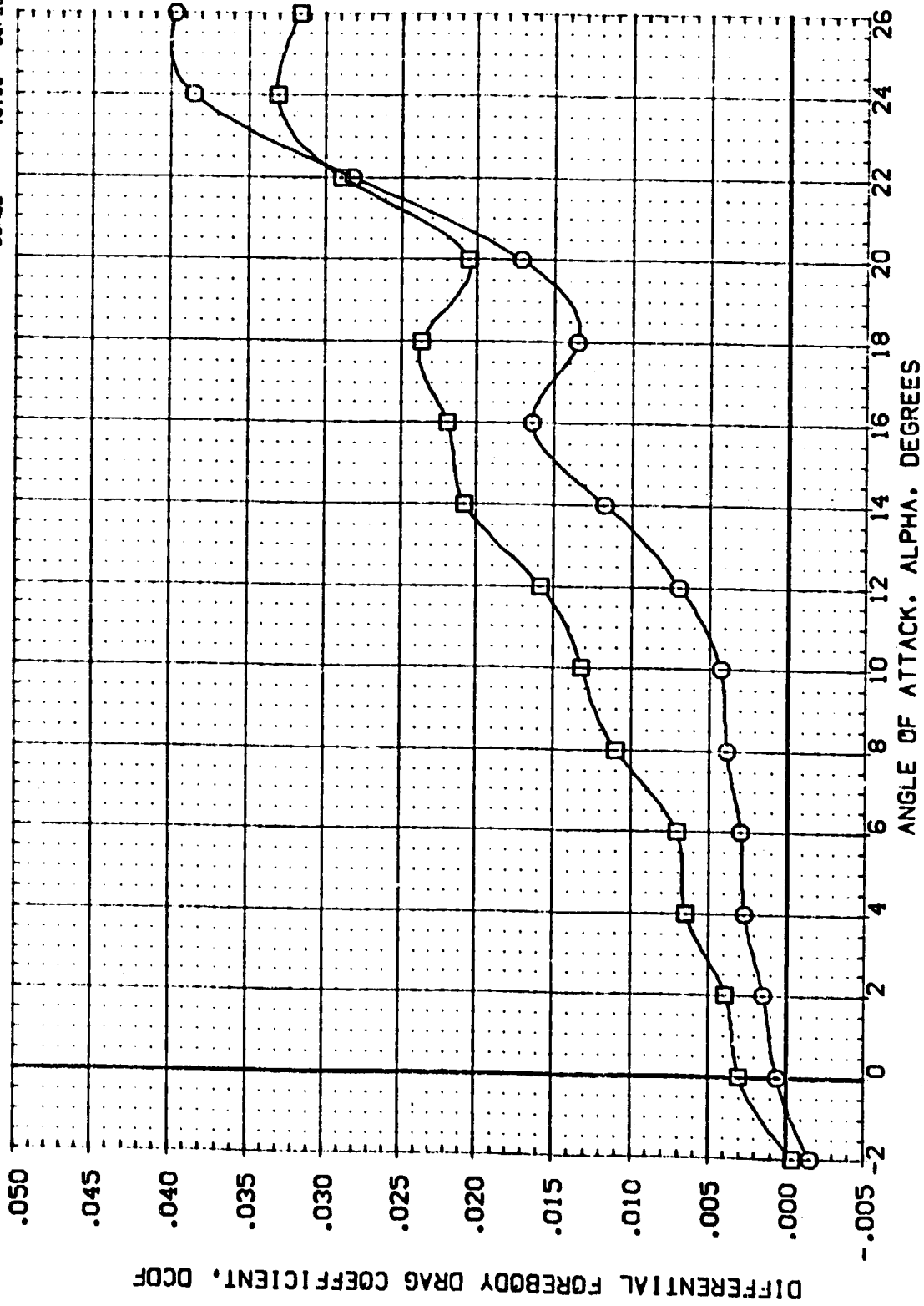


FIGURE 10 139B ORBITER BODY FLAP DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DISFLAP	ELEVON	SPORON	RUDDER	REFERENCE INFORMATION
(149005)	DA17.L1PT138.008 3.(815C7F5M4)(V107E23)(V7M5)	14.250	.000	24.520	.000	SREF 87.1560 50.IN.
(149005)	DA17.L1PT138.008 3.(815C7F5M4)(V107E23)(V7M5)	26.000	.000	24.520	.000	LREF 19.3545 INCHES
						BREF 14.0502 INCHES
						YREF 12.5770 INCHES
						YREF 6.0000 INCHES
						ZREF 6.0000 INCHES
						SCALE .0150 INCHES

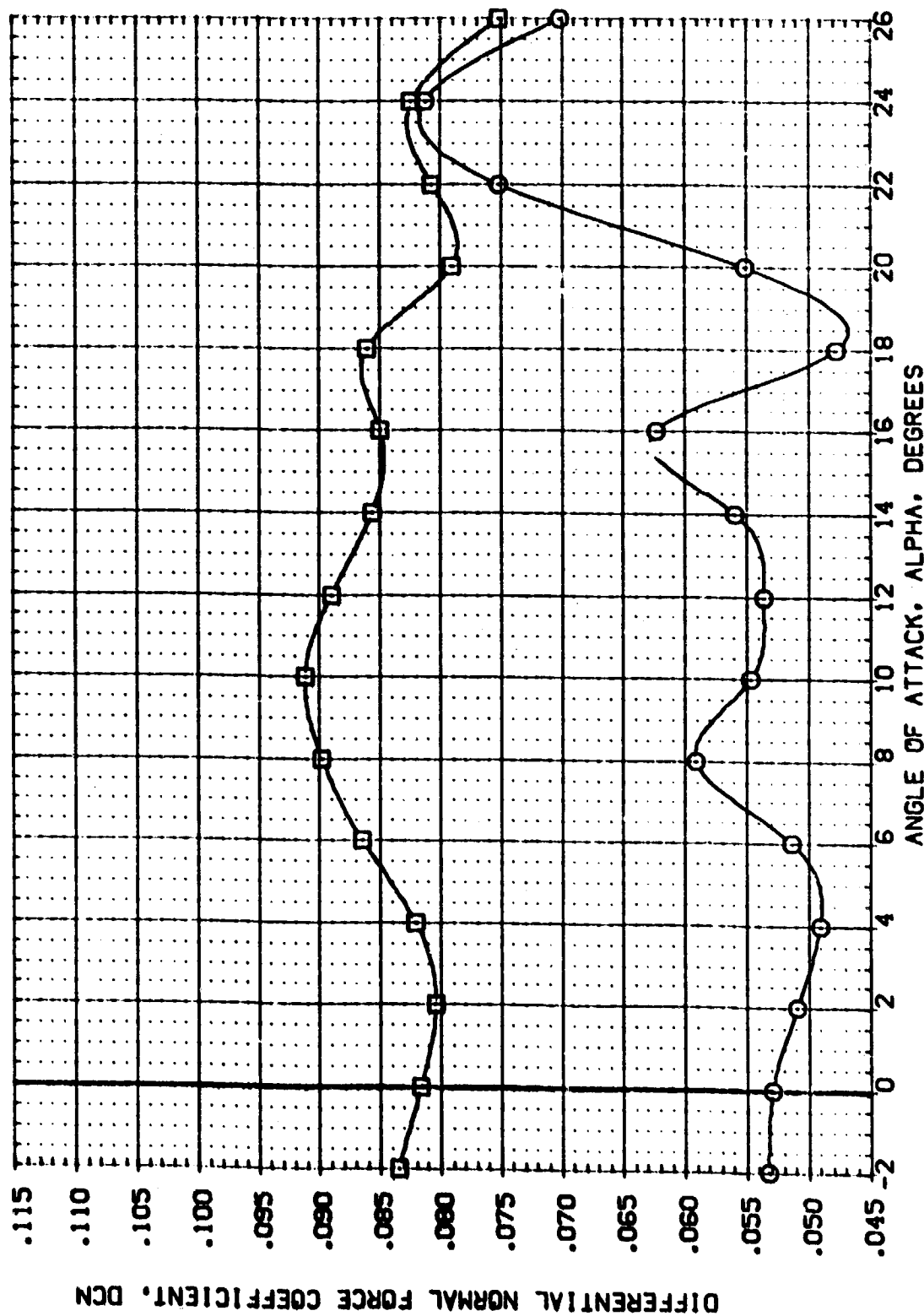


FIGURE 10 1398 ORBITER BODY FLAP DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 10.00



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (HPOOS) 0A17.L1PT138.ORB 3.(B)SC7F5M4)(V107E23)(V7R5)
 (HPOOS) 0A17.L1PT138.ORB 3.(B)SC7F5M4)(V107E23)(V7R5)

REFERENCE INFORMATION
 SREF 87.1560 SQ. IN.
 LREF 19.3545 INCHES
 BREF 14.0502 INCHES
 XREF 12.5770 INCHES
 YREF 6.0000 INCHES
 ZREF 6.0000 INCHES
 SCALE .0150

DBFLAP 14.250
 28.000

ELEVON .000
 .000

SPOBRK 24.920
 24.920

RUDER .000
 .000

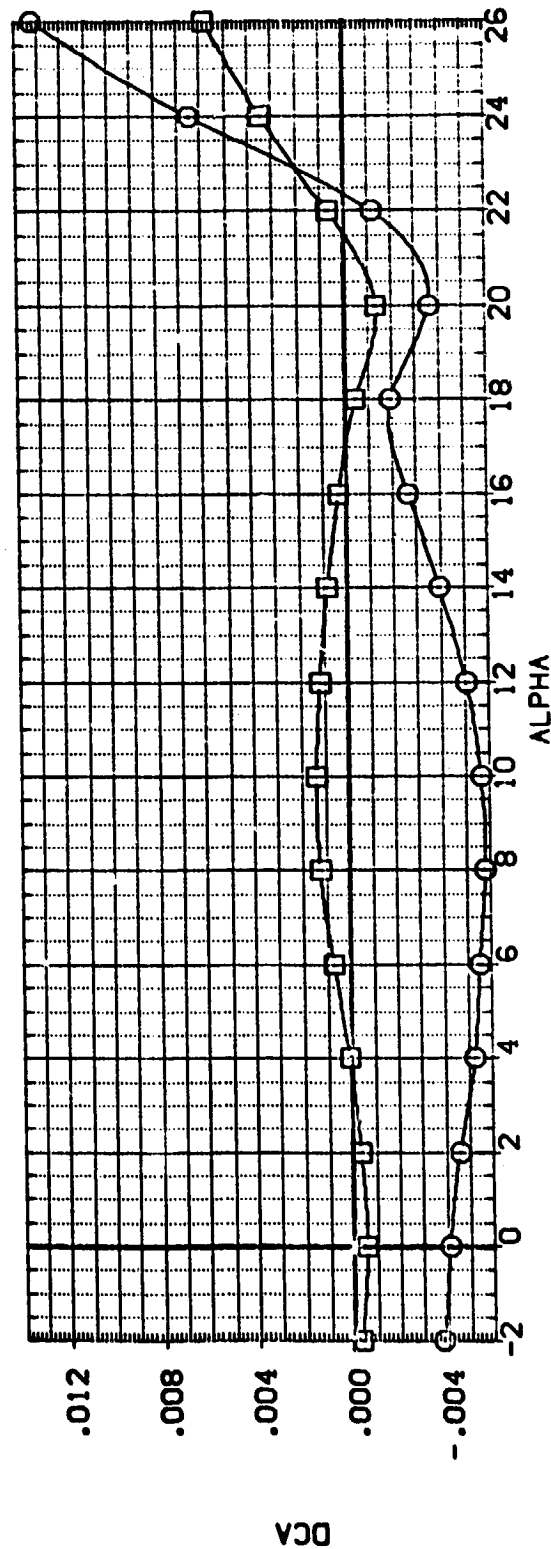
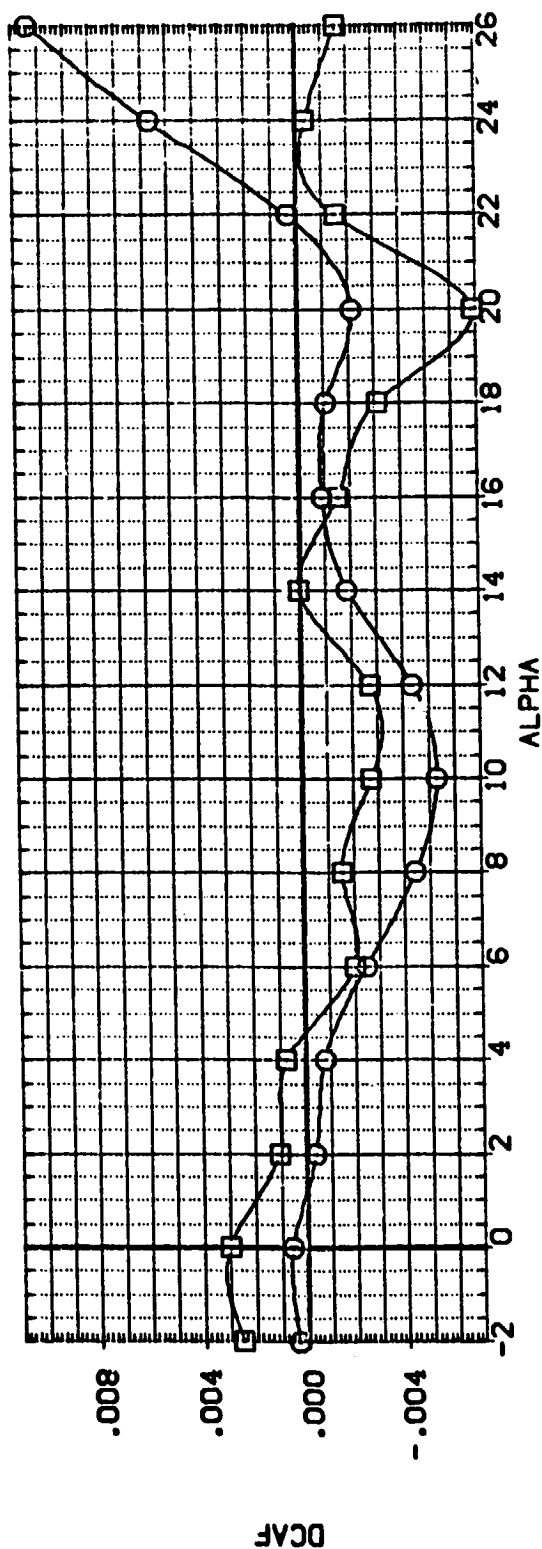


FIGURE 10 139B ORBITER BODY FLAP DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 10.00



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DBFLAP	ELEVON	SPOBRK	RUDER	REFERENCE INFORMATION
(HPP005)	DA17.LTPT138.058 3.(B19C7E5M4)(V107E23)(V7R5)	14.250	.000	24.920	.000	SREF 87.1560 50.IN.
(HPP005)	DA17.LTPT138.058 3.(B19C7E5M4)(V107E23)(V7R5)	28.000	.000	24.920	.000	LREF 19.3545 INCHES
						BREF 14.0502 INCHES
						XGRP 12.5770 INCHES
						YGRP 6.0000 INCHES
						ZGRP 6.0000 INCHES
						SCALE .0150 SCALE

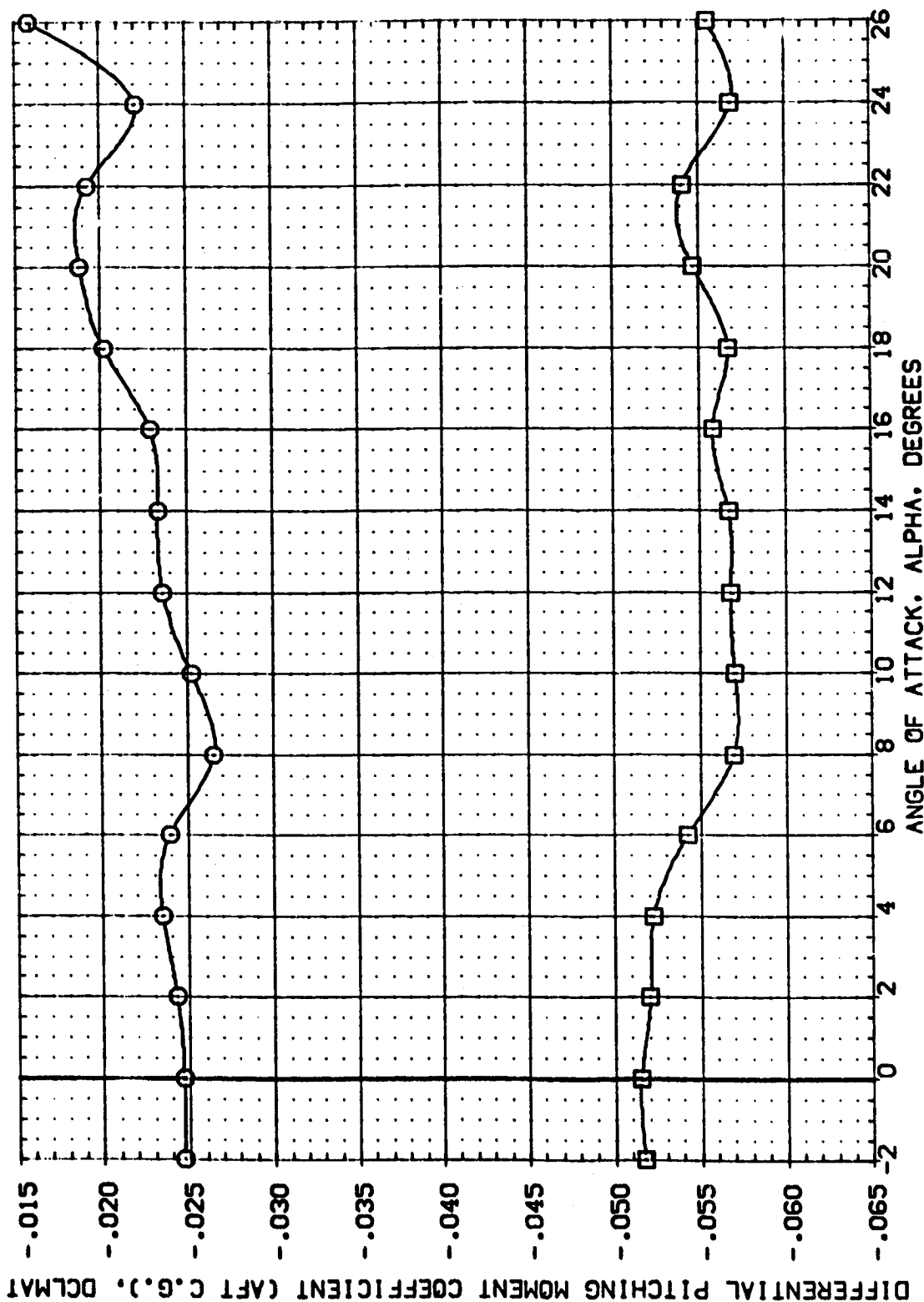


FIGURE 10 139B ORBITER BODY FLAP DEFLECTION INCREMENTAL EFFECTS

(AJRN/L = 10.00

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		DBFLAP		ELEVON		SPOBRK		RUDDER		REFERENCE INFORMATION	
(FPCGS)	□	BA17.LTPT138.0R8	3.(B19C7F5M4)(V107E23)(V7RS)	14.250	.000	24.920	.000	.000	.000	SREF	87.1560	50. IN.	
(FPCGS)	□	BA17.LTPT138.0R8	3.(B19C7F5M4)(V107E23)(V7RS)	28.000	.000	24.920	.000	.000	.000	LREF	19.3545	INCHES	
										BREF	14.0502	INCHES	
										XPRP	12.5770	INCHES	
										YPRP	.0000	INCHES	
										ZPRP	6.0000	INCHES	
										SCALE	.0150	SCALE	

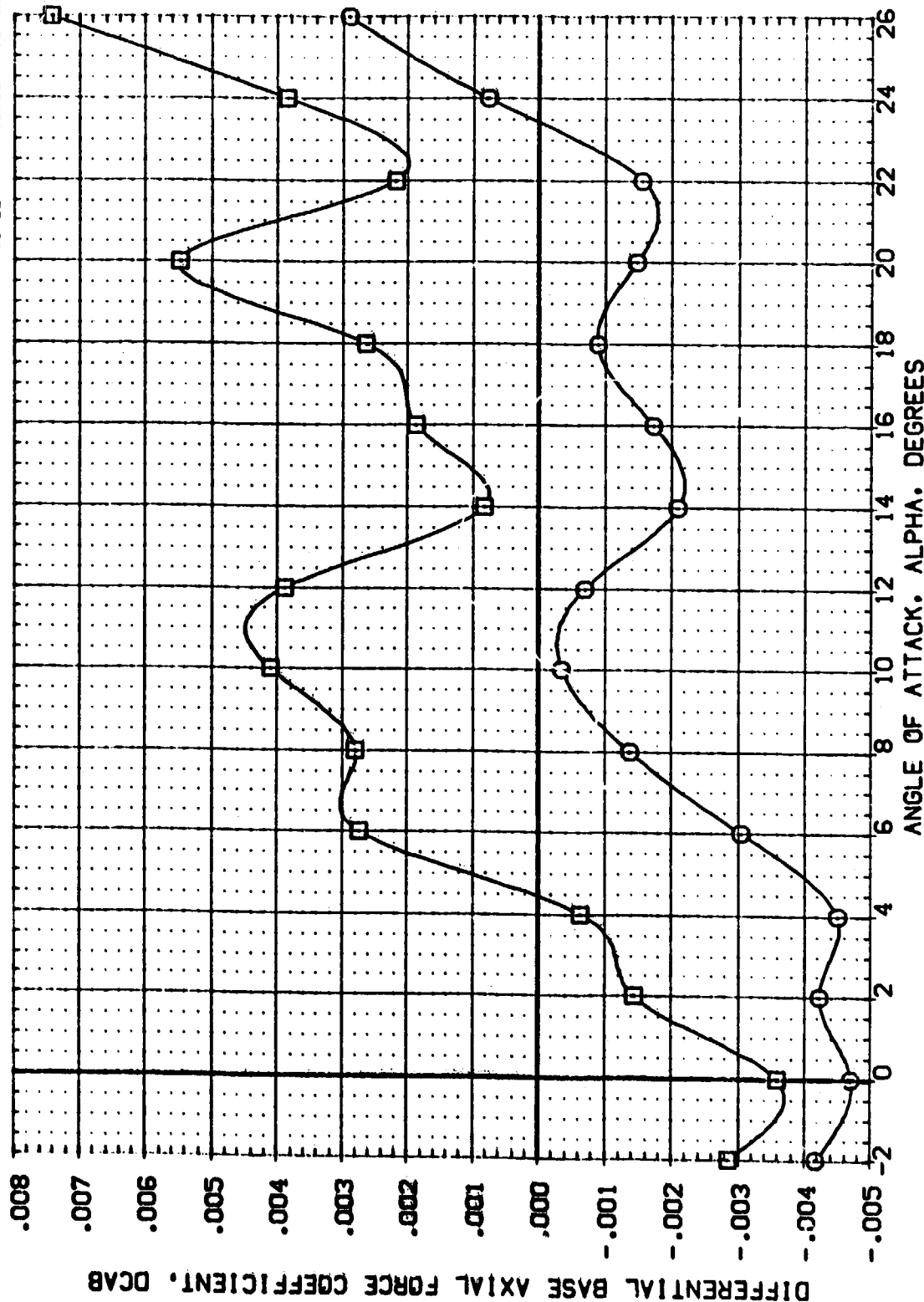


FIGURE 10 1398 ORBITER BODY FLAP DEFLECTION INCREMENTAL EFFECTS

(AJRN/L = 10.00

0A17.LTPT138.ORB 3.(B19C7F5M4)(W107E23)(V7R5) (NPP102)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	RVL	.000	DBFLAP	SRF	50. IN.
10.000	AIRLN	24.920	DBFLAP	LRP	19.3545
20.000	RUDER	.000	DBFLAP	BRP	14.0502
30.000	MACH	.000	DBFLAP	YRP	12.5770
			DBFLAP	ZRP	.0000
			DBFLAP	SCALE	6.0000
			DBFLAP	SCALE	.0150

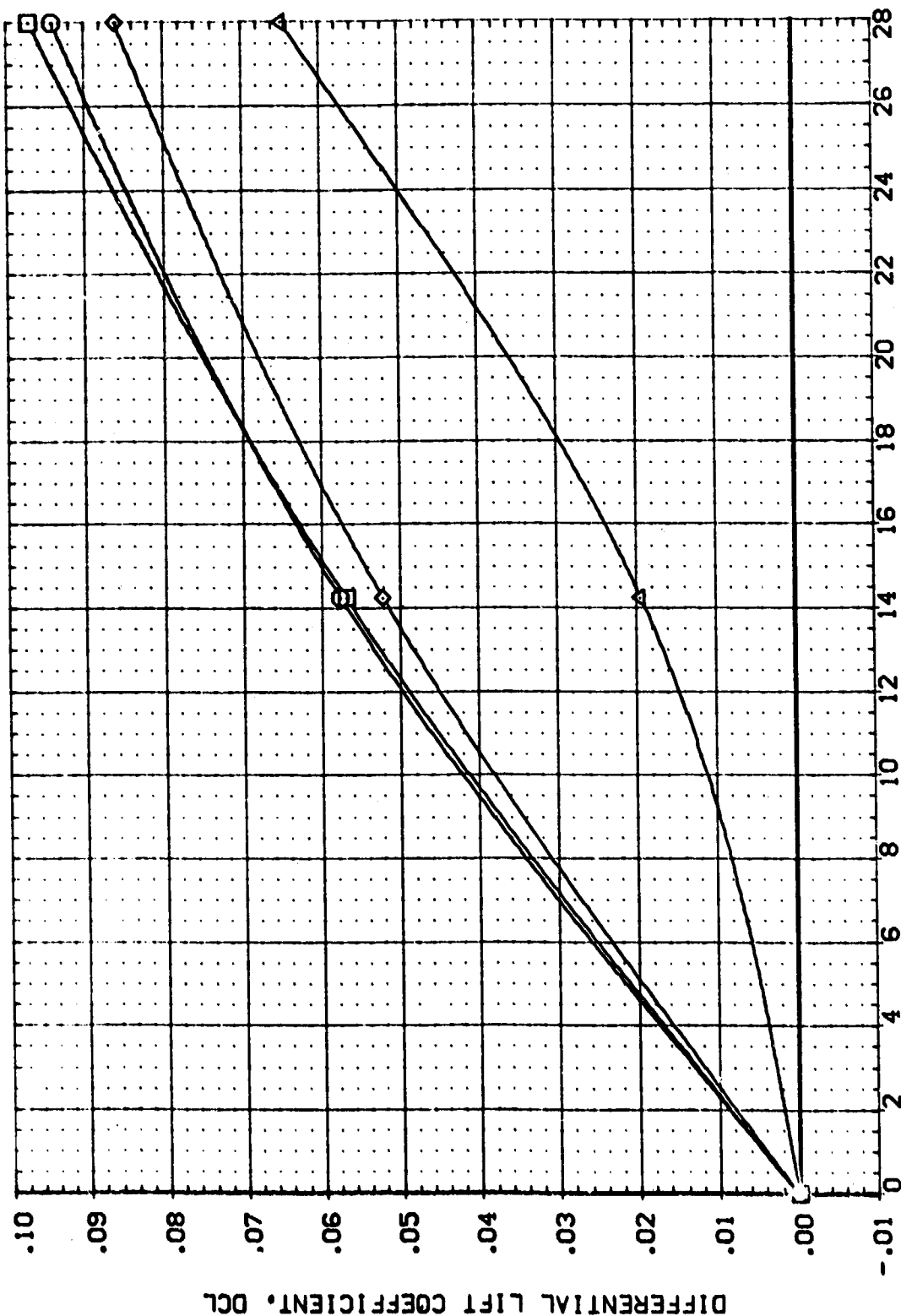
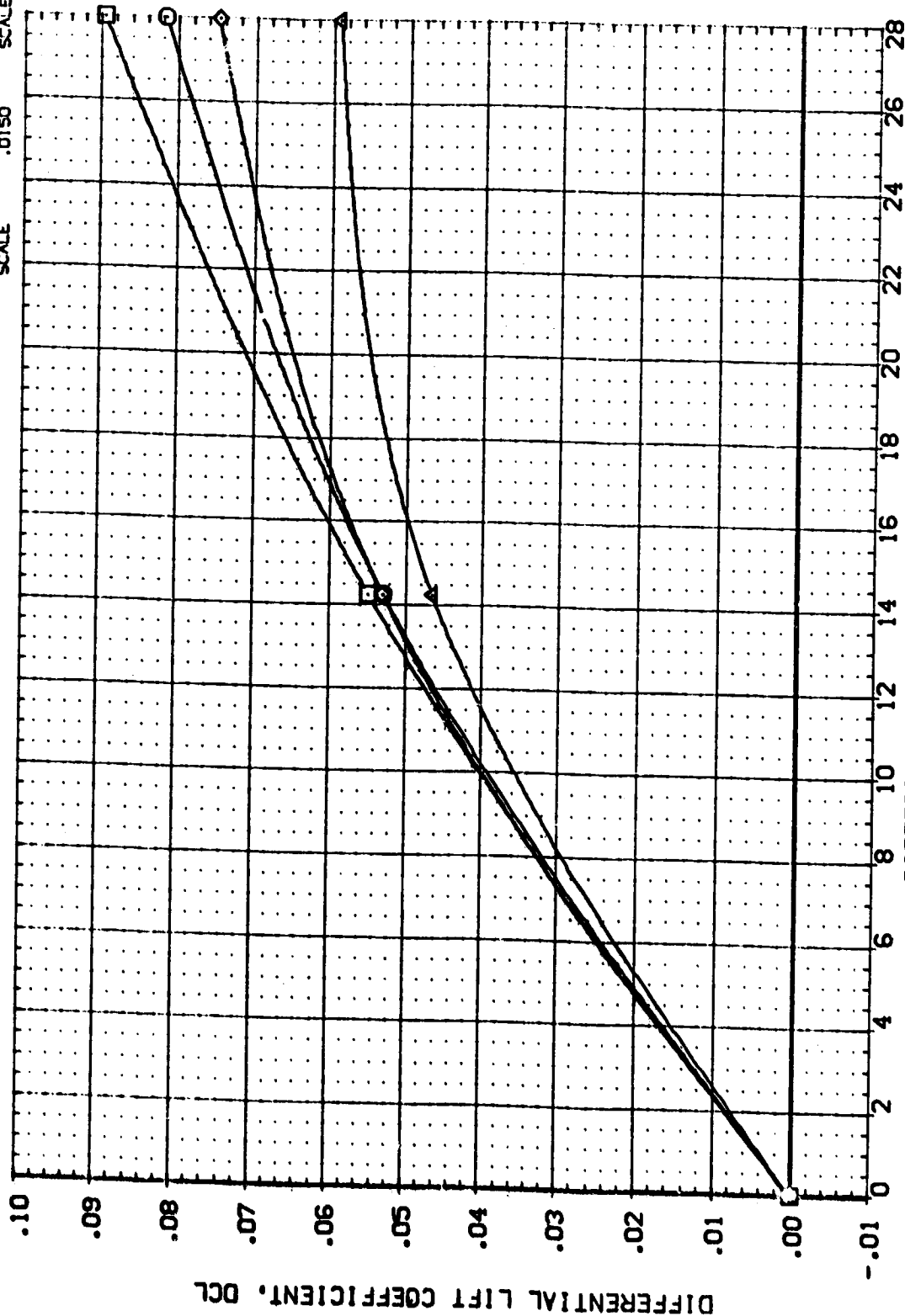


FIGURE 10 139B ORBITER BODY FLAP DEFLECTION INCREMENTAL EFFECTS

0A17.LTPT138.ORB 3.(B19C7F5M4)(W107E23)(V7R5) (NPP102)

SYMBOL	PARAMETRIC VALUES			DATA SOURCE			REFERENCE INFORMATION		
	ALPHA	RV/L	ELEVON	DBFLAP	DATASET	DBFLAP	SREF	SD, IN.	
○	.000	.000	.000	.000	.000	.000	19.3545	INCHES	
□	10.000	.000	SPDRK	24.920	NPP102	14.250	12.5770	INCHES	
◇	20.000	.000	BETA	.000	NPP005		6.0000	INCHES	
△	30.000	.243					6.0000	INCHES	
							ZMRP	SCALE	
							ZMRP	SCALE	



DIFFERENTIAL BODY FLAP DEFLECTION, DBFLAP
FIGURE 10 139B ORBITER BODY FLAP DEFLECTION INCREMENTAL EFFECTS

0A17.LIPT138.0RB 3.(B19C7F5M4)(W107E23)(V7R5) (NPP102)

SYMBOL	PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
	ALPHA	RN/L	ELEVON	SPCRK	.000	DBFLAP	DBFLAP	SREF	SO.IN.	INCHES
□	.000	4.700	.000	.000	24.920	NPP102	.000	19.3545	19.3545	INCHES
◇	10.000	.000	.000	.000	.000	NPP005	28.000	14.0502	14.0502	INCHES
△	20.000	.000	.000	.000	.000	NPP006	.000	12.5770	12.5770	INCHES
	30.000	.000	.000	.000	.000	NPP005	.000	6.0000	6.0000	INCHES
								SCALE	SCALE	SCALE
								.0150	.0150	.0150

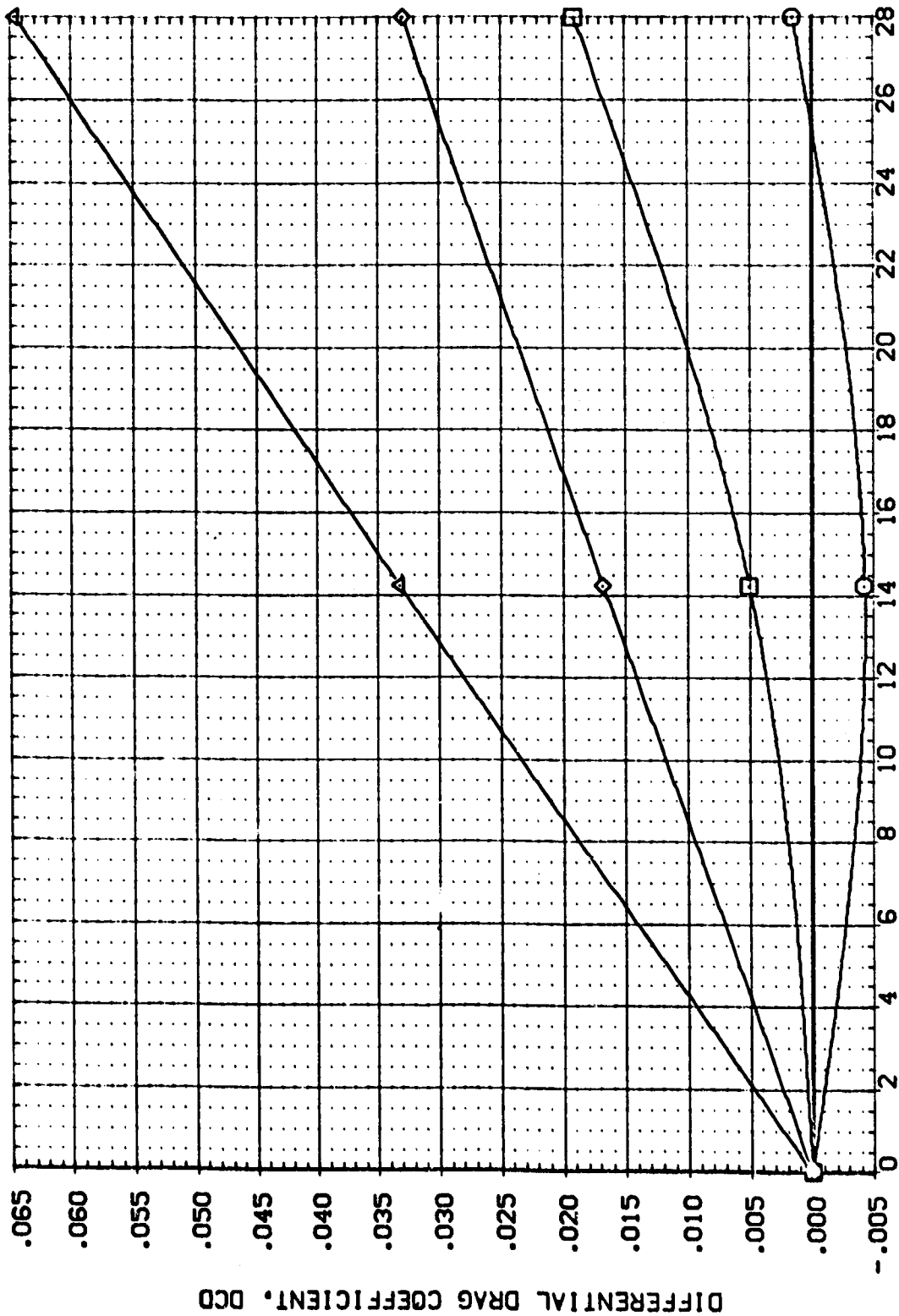
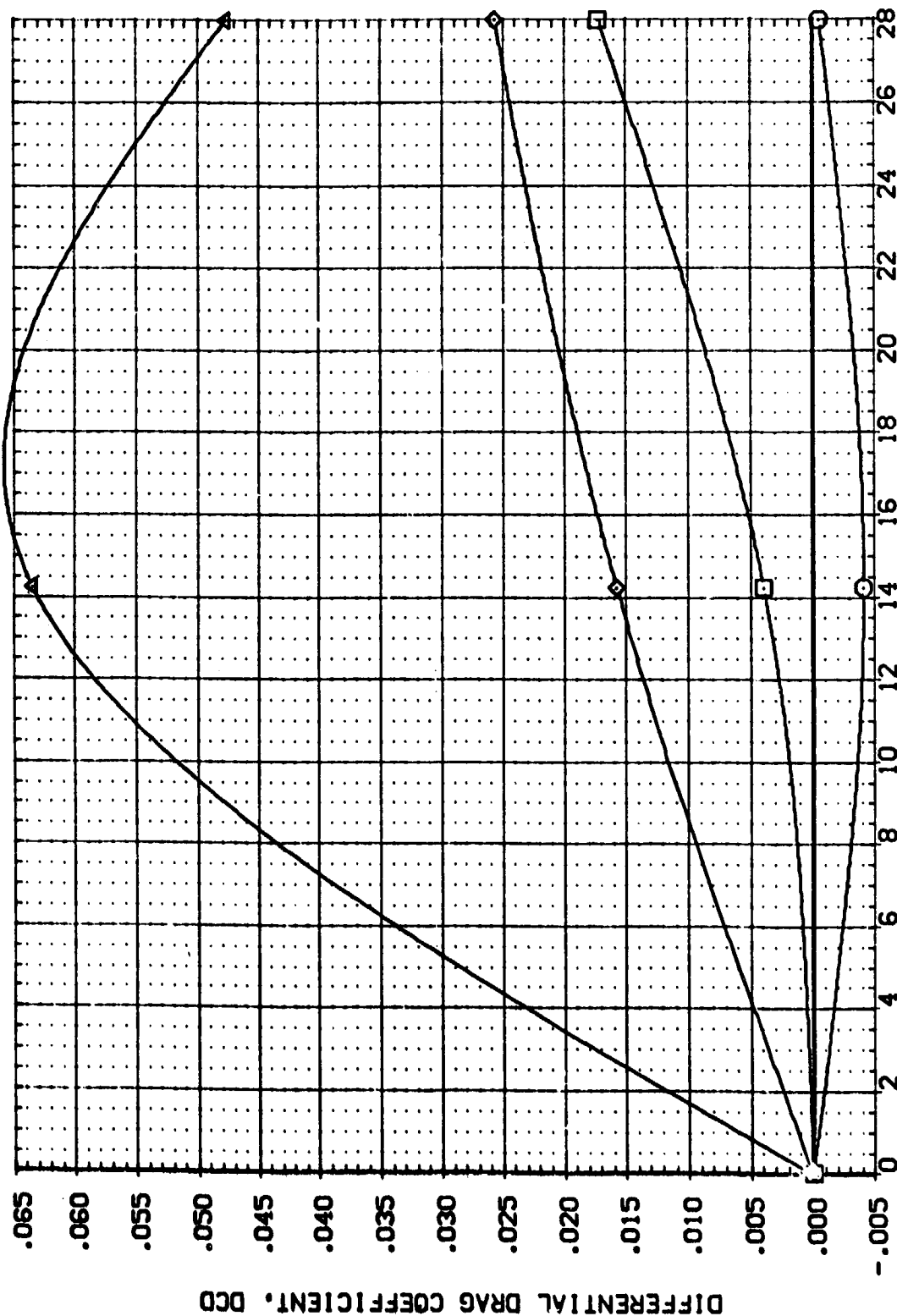


FIGURE 10 139B ORBITER BODY FLAP DEFLECTION INCREMENTAL EFFECTS

0A17.LTPT138.0RB 3.(B19C7F5M4)(W107E23)(V7R5) (NPP102)

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
□	.000	10.000 ELEVON	.000 DBFLAP	SQ. IN.
□	10.000	.000 SPOBRK	24.920 NPP102	INCHES
◇	20.000	.000 BETA	.000 NPP005	INCHES
△	30.000	.243	28.000	INCHES
				INCHES
				SCALE



DIFFERENTIAL BODY FLAP DEFLECTION, DBFLAP

FIGURE 10 139B ORBITER BODY FLAP DEFLECTION INCREMENTAL EFFECTS

0A17.LTPT138.CRB 3.(B19C7F5M4)(W107E23)(V7R5) (NPP102)

SYMBOL	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
	ALPHA	RV/L	AILRON	RUDER	MACH	DBFLAP	DBFLAP	SREF	SO.IN.	INCHES	INCHES	INCHES
○	.000	4.700	.000	.000	.243	.000	24.920	19.3545	87.1560	19.3545	14.0502	12.5770
□	10.000	.000	.000	.000	.000	.000	28.000	14.250	19.3545	14.0502	12.5770	6.0000
◇	20.000	.000	.000	.000	.000	.000	28.000	14.250	19.3545	14.0502	12.5770	6.0000
△	30.000	.000	.000	.000	.000	.000	28.000	14.250	19.3545	14.0502	12.5770	6.0000

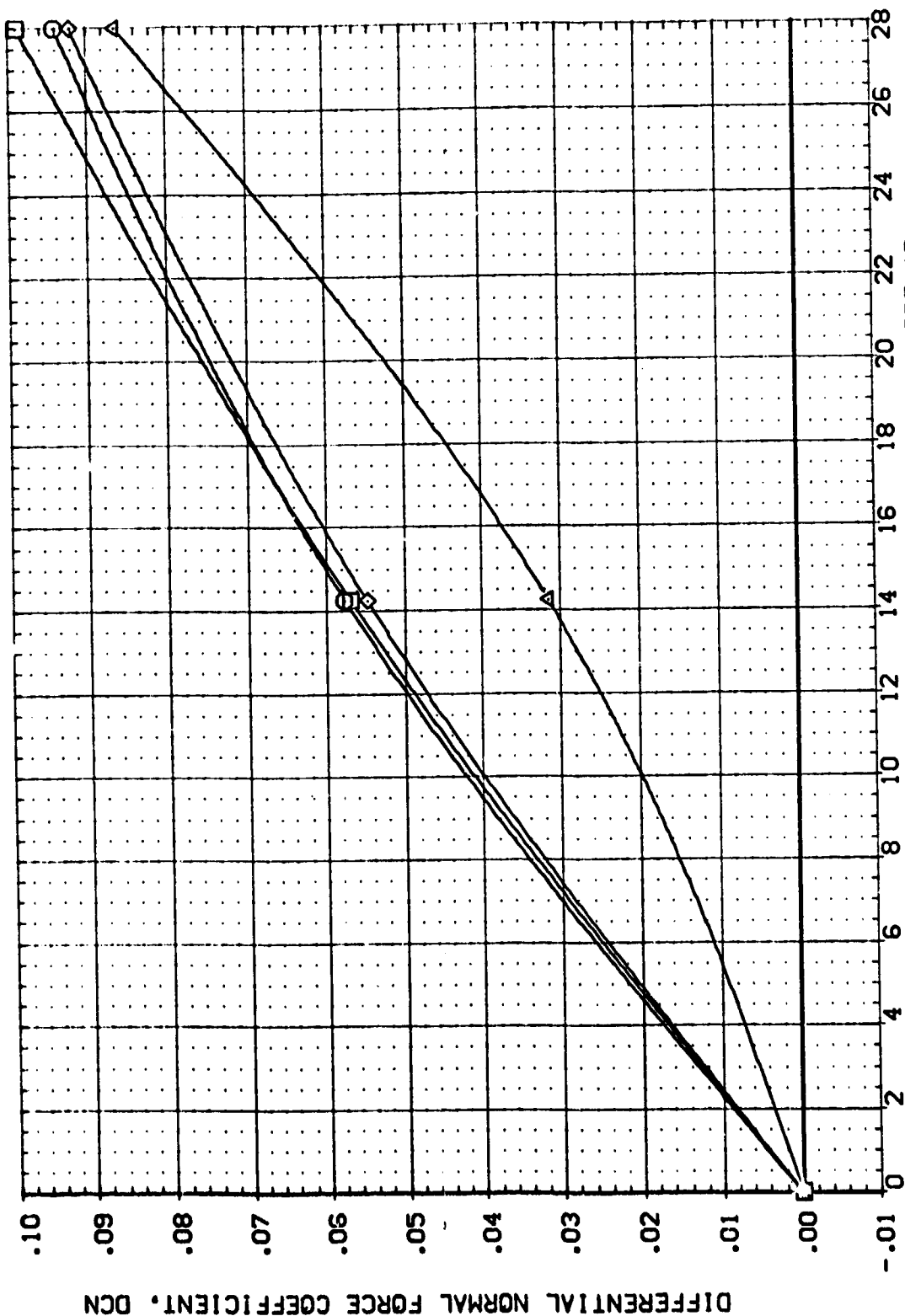


FIGURE 10 139B ORBITER BODY FLAP DEFLECTION INCREMENTAL EFFECTS

0A17.LTPT138.ORB 3.(B19C7F5M4)(W1J7E23)(V7R5) (NPP102)

SYMBOL		ALPHA		PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
○	.000	RV/L	4.700	ELEVON	.000	DATASET	DBFLAP	SREF	87.1560
□	10.000	AILRON	.000	SPDRK	24.920	NPP102	14.250	LREF	19.3545
◇	20.000	RUDER	.000	BETA	.000	NPP005	28.000	BREF	14.0502
△	30.000	MACH	.243		.000			YTRP	12.5770
								ZTRP	.0000
								SCALE	6.0000
									.0150

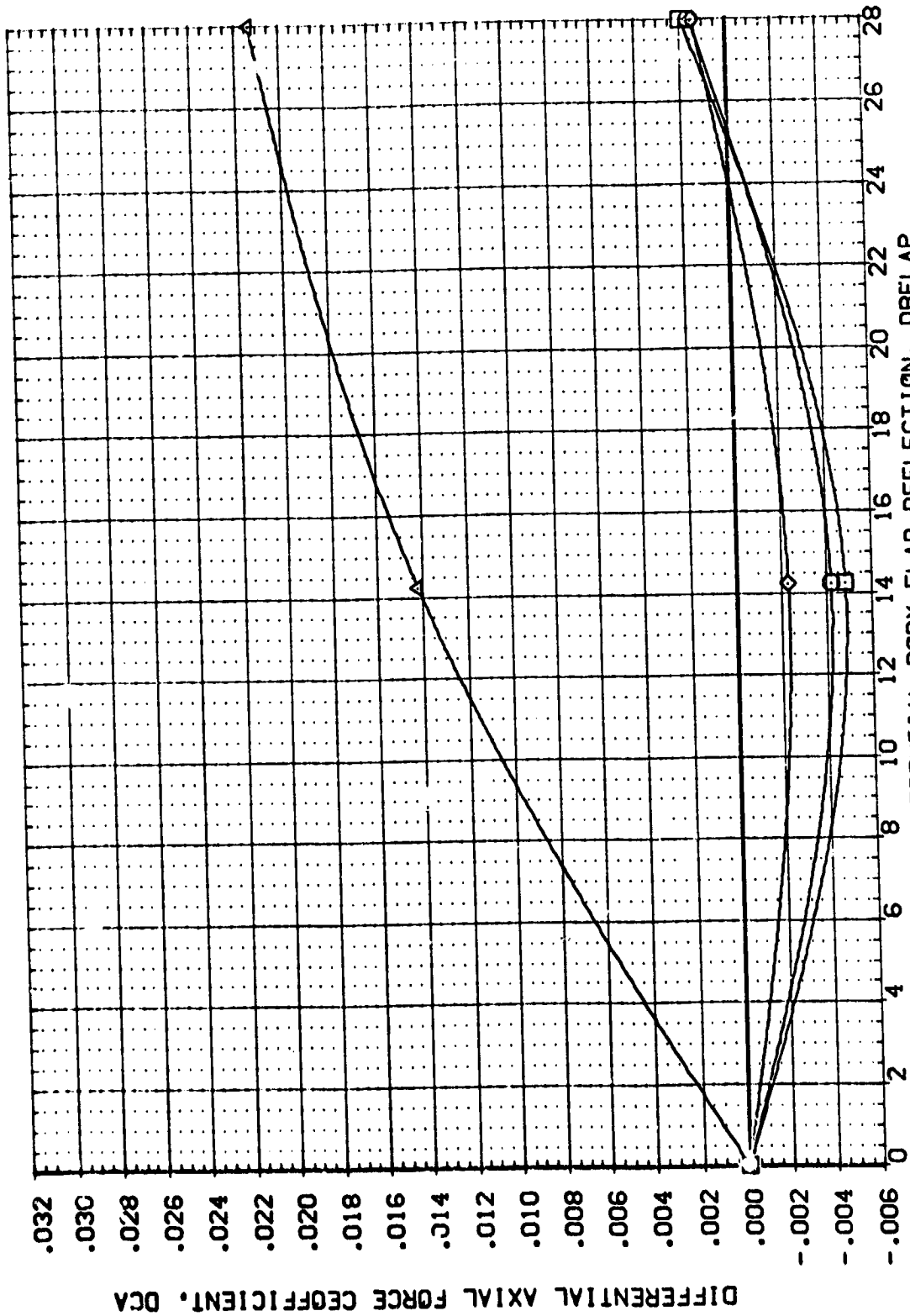
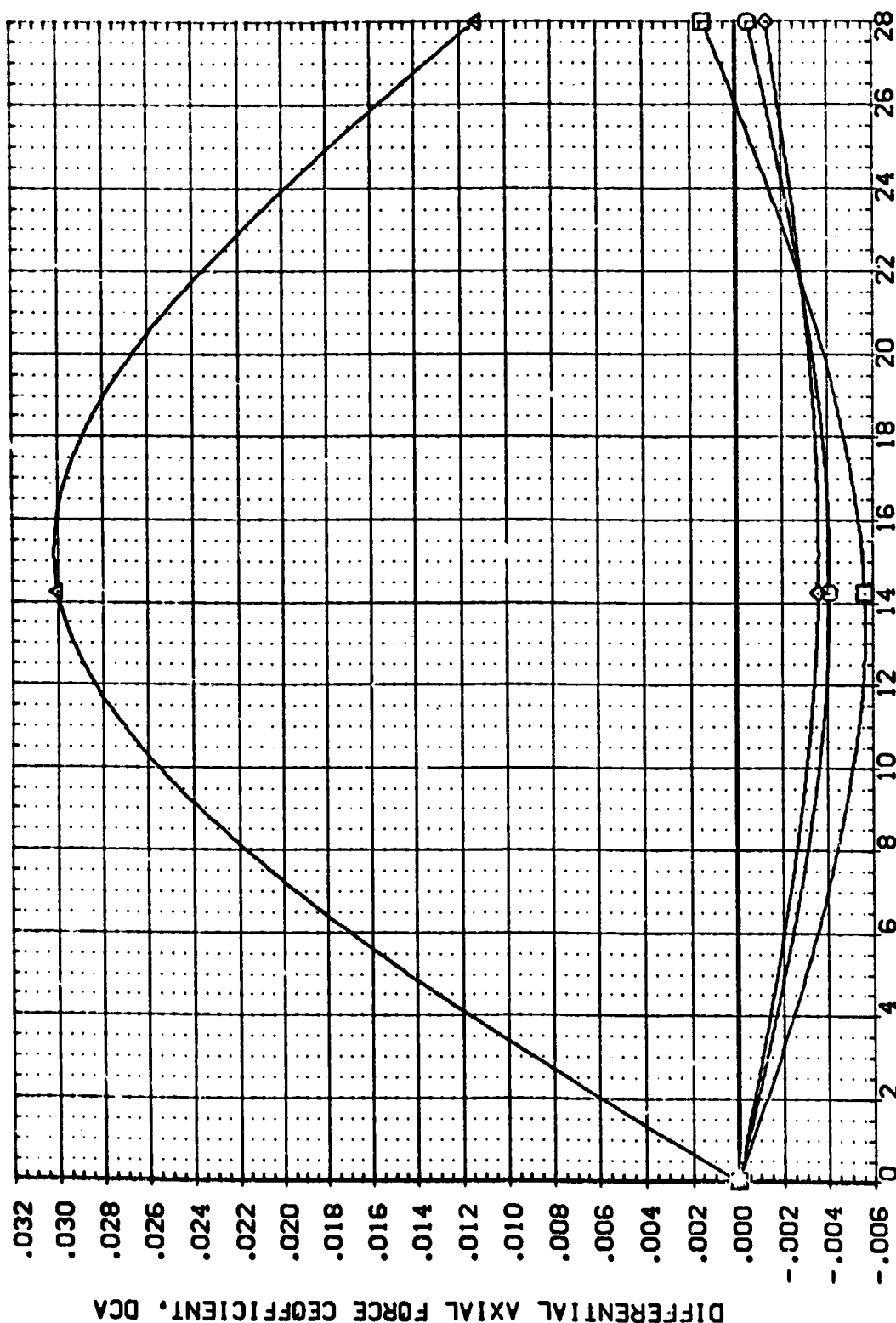


FIGURE 10 139B ORBITER BODY FLAP DEFLECTION INCREMENTAL EFFECTS

0A17.LTPT138.ORB 3.(B19C7F5M4)(W107E23)(V7R5) (NPP102)

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	.000	RV/L	DBFLAP	SREF
□	10.000	ELEVON	DBFLAP	LREF
◇	20.000	SPOBRK	NPP005	BREF
△	30.000	BETA	NPP005	XMRP
		.24"	NPP005	YMRP
				ZMRP
				SCALE
				SCALE

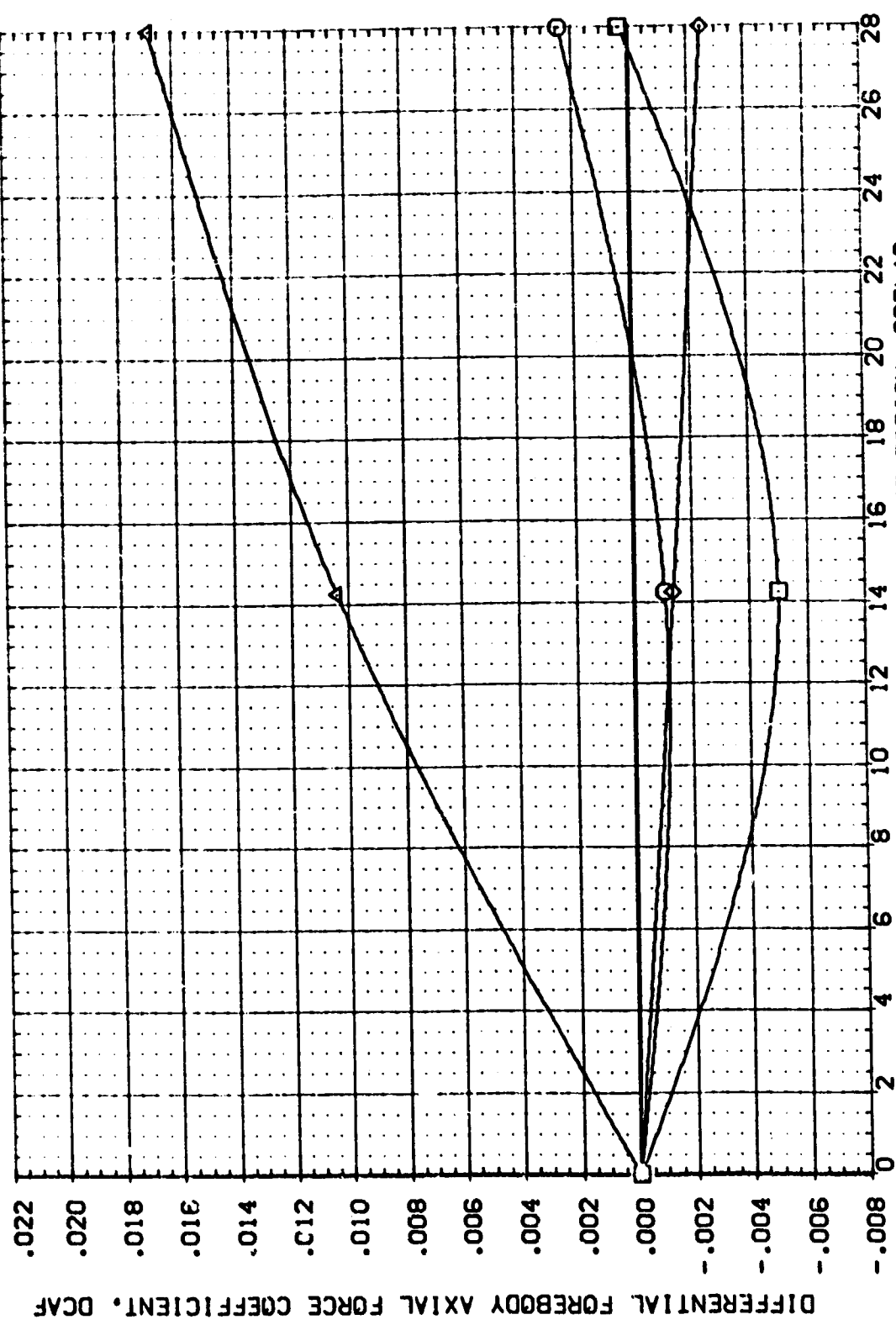


DIFFERENTIAL BODY FLAP DEFLECTION, DBFLAP

FIGURE 10 139B ORBITER BODY FLAP DEFLECTION INCREMENTAL EFFECTS

0A17.LTPT138.ORB 3.(B19C7F5M4)(W107E23)(V7R5) (NPP102)

SYMBOL	ALPHA	RN/L	PARAMETRIC VALUES	DATA SOURCE	DATA SET	DBFLAP	SREF	REFERENCE INFORMATION
□	.000		4.700	ELEVON	.000	DBFLAP	14.250	SREF 87.1560
◇	10.000	AILRON	.000	SPOBRK	24.920	NPP102	.000	LREF 19.3545
△	20.000	RUDER	.000	BETA	.000	NPP005	26.000	BREF 14.0502
	30.000	MACH	.243		.000	NPP005		XTRP 12.5770
								YTRP .0000
								ZTRP .0000
								SCALE 6.0000
								SCALE .0150

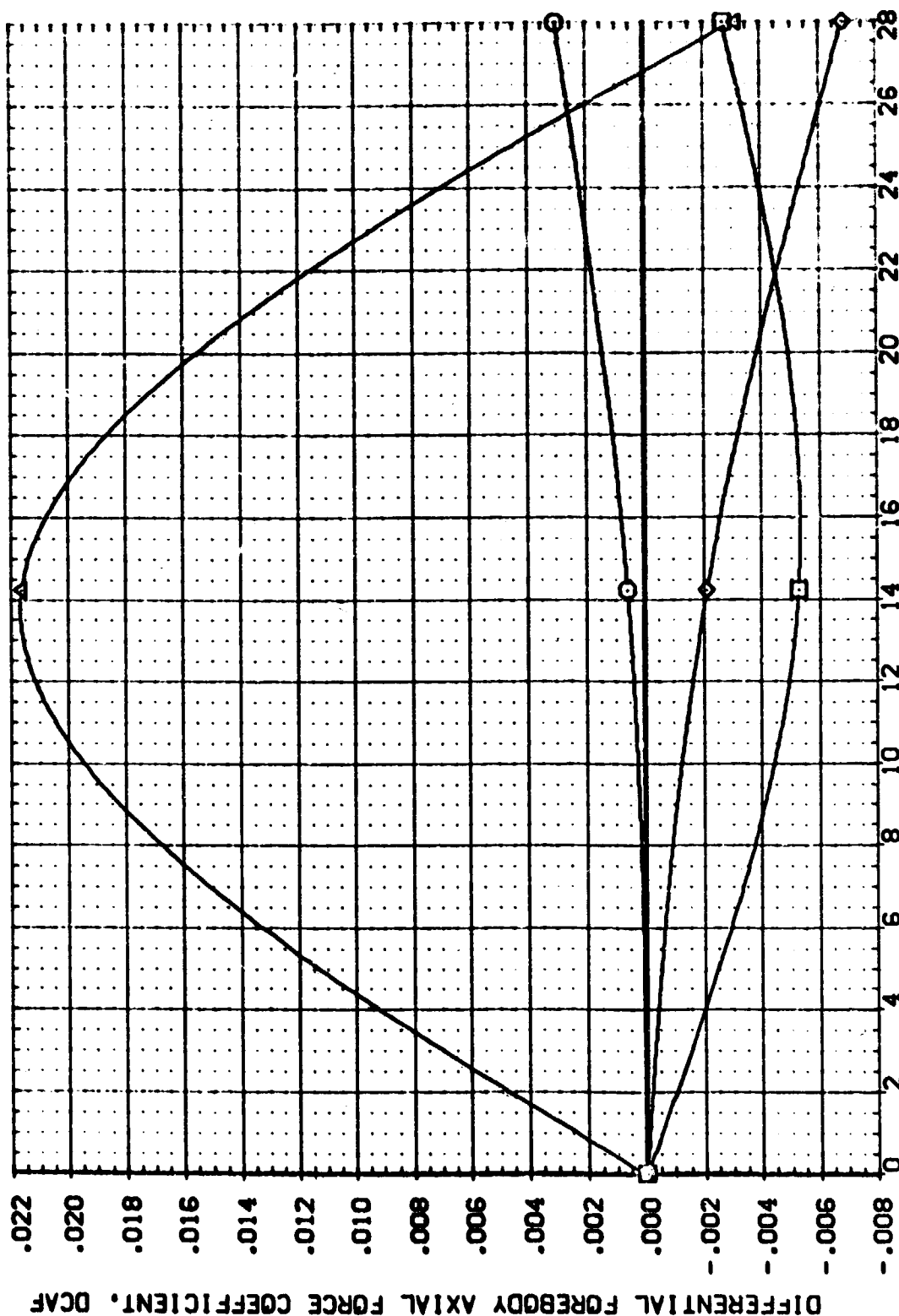


DIFFERENTIAL BODY FLAP DEFLECTION, DBFLAP

FIGURE 10 139B ORBITER BODY FLAP DEFLECTION INCREMENTAL EFFECTS

(NPP102)

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	.000	RV/L 10.000	DATASET .000	SREF 87.1560 SQ. IN.
□	10.000	AT/LRON .000	DEFLAP .000	LREF 19.3545 INCHES
◇	20.000	SP/BRK .000	NPPO06 14.250	EREF 14.0502 INCHES
△	30.000	BETA .243	YPP .000	XREF 12.5770 INCHES
			ZPP .000	YPP 6.0000 INCHES
			SCALE .0150	SCALE .0150



DIFFERENTIAL BODY FLAP DEFLECTION, DBFLAP

FIGURE 10 1398 ORBITER BODY FLAP DEFLECTION INCREMENTAL EFFECTS

0A17.LTPT138.ORB 3.(B19C7F5M4)(W107E23)(V7R5) (NPP102)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	RV/L	.000	DBFLAP	SREF	SO. IN.
10.000	AILRON	24.920	DBFLAP	LREF	INCHES
20.000	RUDER	.000	DBFLAP	BREF	INCHES
30.000	MACH	.000	DBFLAP	XREF	INCHES
		.243	DBFLAP	ZREF	INCHES
			DBFLAP	SCALE	SCALE
			DBFLAP		

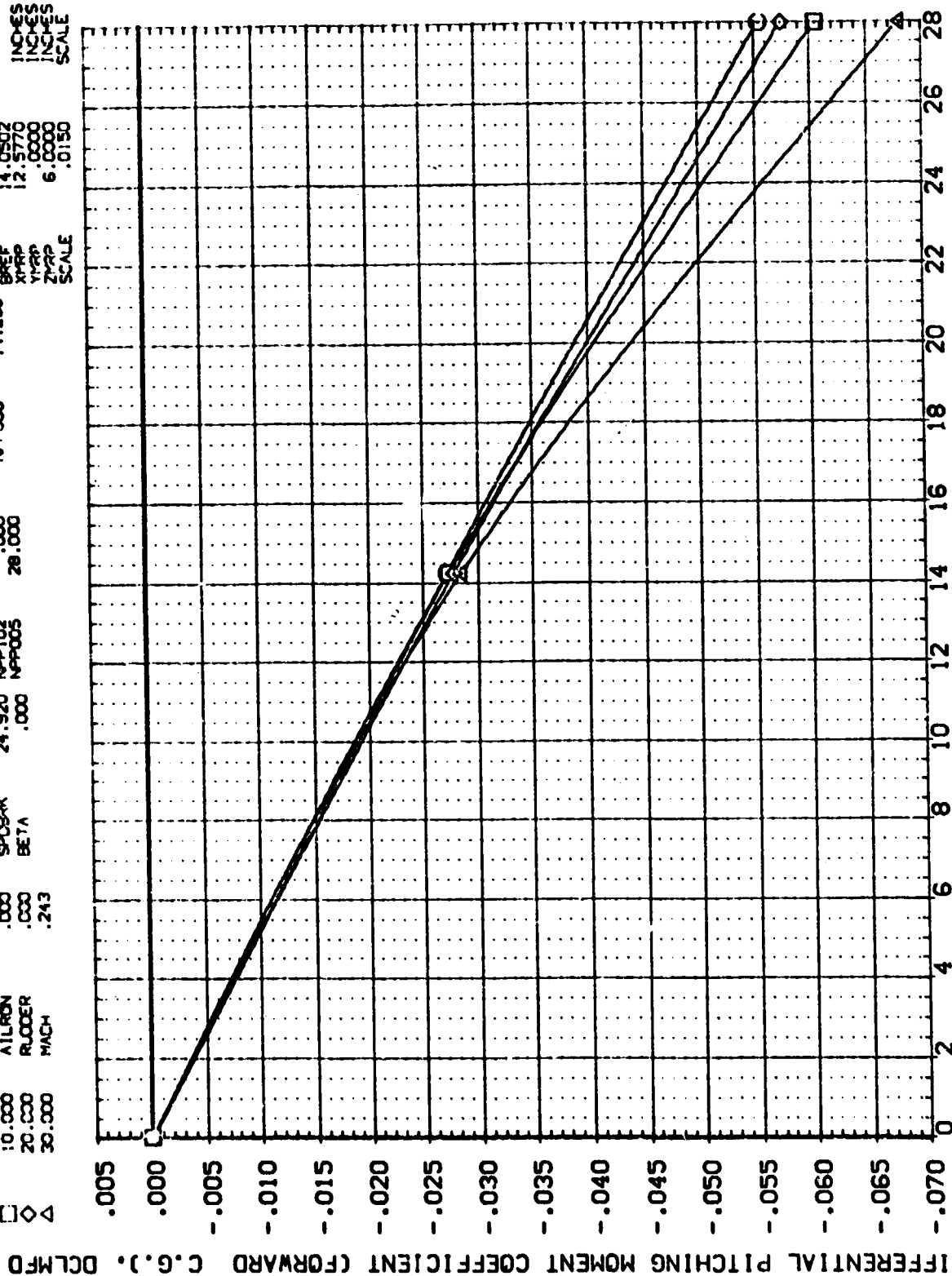
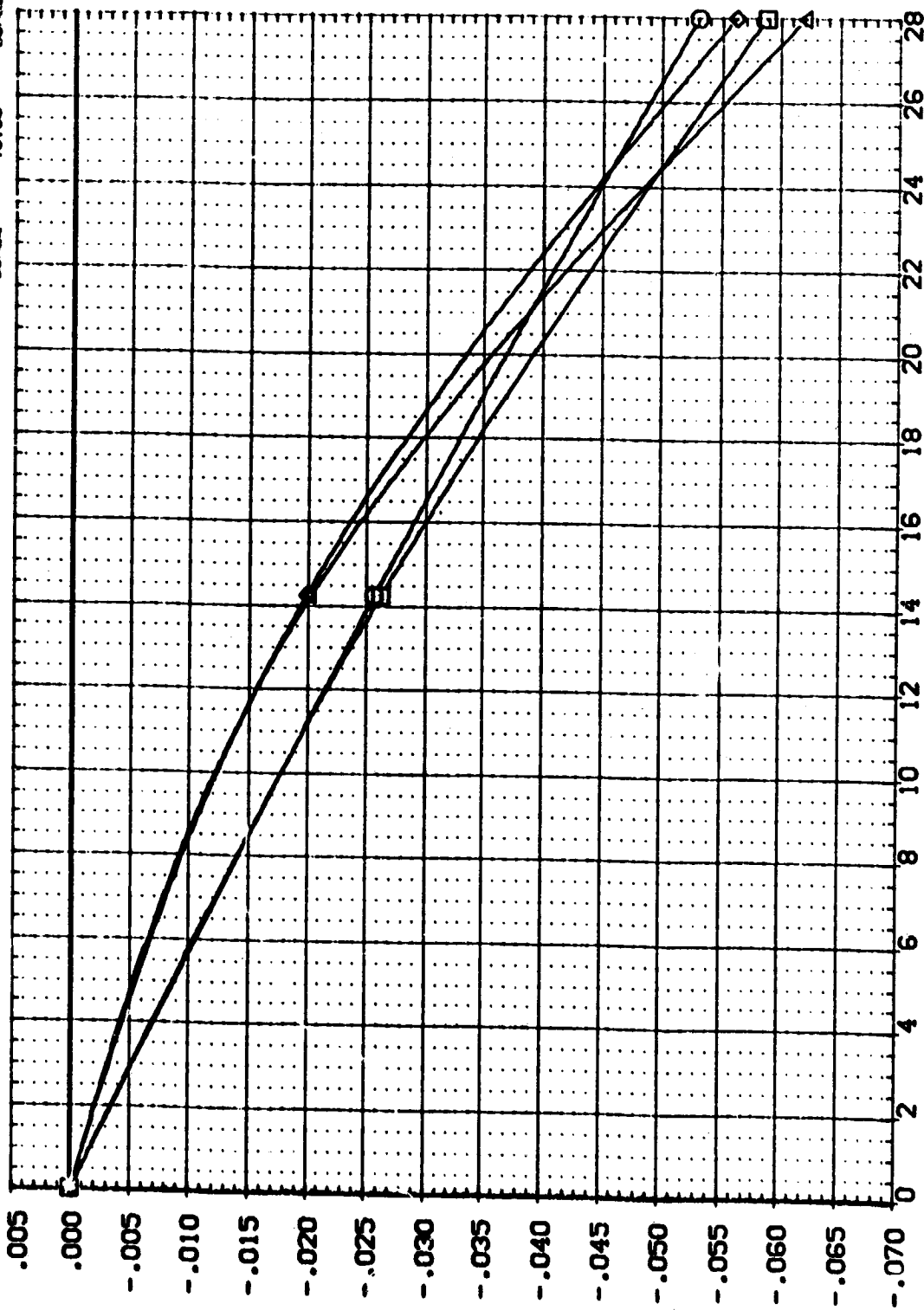


FIGURE 10 139B ORBITER BODY FLAP DEFLECTION INCREMENTAL EFFECTS

0A17.LTPT138.ORB 3.(B19C7F5M4)(W107E23)(V7R5) (NPP102)

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	.000	10.000 ELEVON	.000 DATASET	87.1550 50. IN
□	10.000	.000 SPOCK	24.920 NPP102	19.2545 INCHES
△	20.000	.000 BETA	.000 NPP005	4.6502 INCHES
△	30.000	.243	28.000	12.5770 INCHES
				6.0000 INCHES
				6.0000 INCHES
				SCALE .0150

DIFFERENTIAL PITCHING MOMENT COEFFICIENT (FORWARD C.G.). DCLMFD

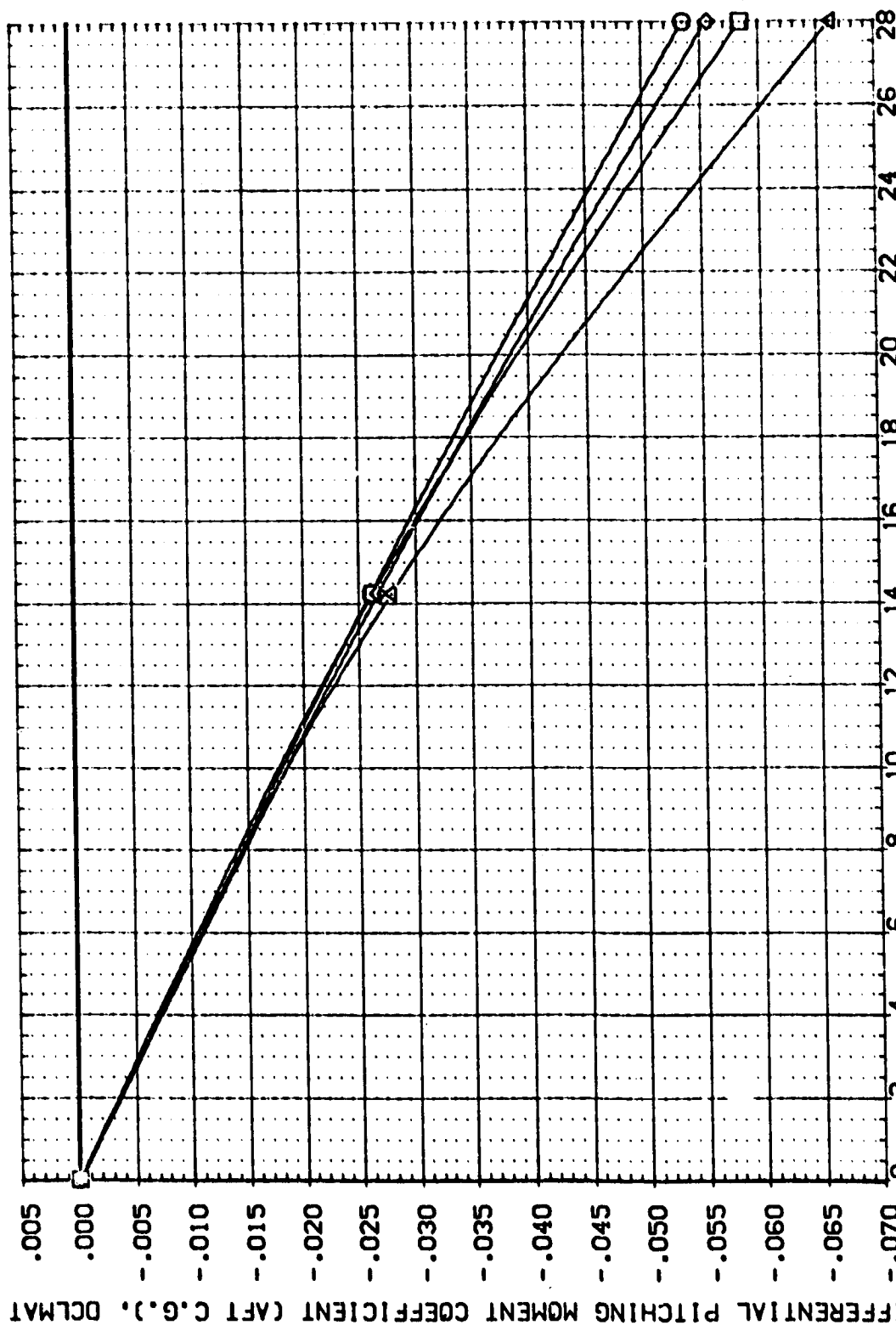


DIFFERENTIAL BODY FLAP DEFLECTION. DBFLAP

FIGURE 10 139B ORBITER BODY FLAP DEFLECTION INCREMENTAL EFFECTS

0A17.LTPT138.ORB 3.(B19C7F5M4)(W107E23)(V7R5) (NPP102)

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	DATA SOURCE	REFERENCE INFORMATION
○	.000	RN/L	.000	DBFLAP	87.1560
□	10.000	AILRON	24.920	DBFLAP	19.3545
◇	20.000	SPDRK	.000	DBFLAP	14.0502
△	30.000	BETA	.000	DBFLAP	12.5770
		FLDDR	28.000	DBFLAP	.0000
		MACH	.243	DBFLAP	6.0000
				DBFLAP	.0150



DIFFERENTIAL BODY FLAP DEFLECTION. DBFLAP

FIGURE 10 139B ORBITER BODY FLAP DEFLECTION INCREMENTAL EFFECTS

0A17.LTPT138.ORB 3.(B19C7F5M4)(W107E23)(V7R5) (NPP102)

PARAMETRIC VALUES			DATA SOURCE			REFERENCE INFORMATION		
ALPHA	RV/L	ELEVON	.000	DBFLAP	DBFLAP	SREF	87.1500	50. IN.
.000	.000	.000	24.920	NPP102	NPP006	LREF	19.3543	INCHES
10.000	.000	.000	.000	NPP005		BREF	14.0502	INCHES
20.000	.000	.000	.000			XTRP	12.5770	INCHES
30.000	.000	.000	.000			YTRP	6.0000	INCHES
	.243					ZTRP	6.0000	INCHES
						SCALE	.0150	SCALE

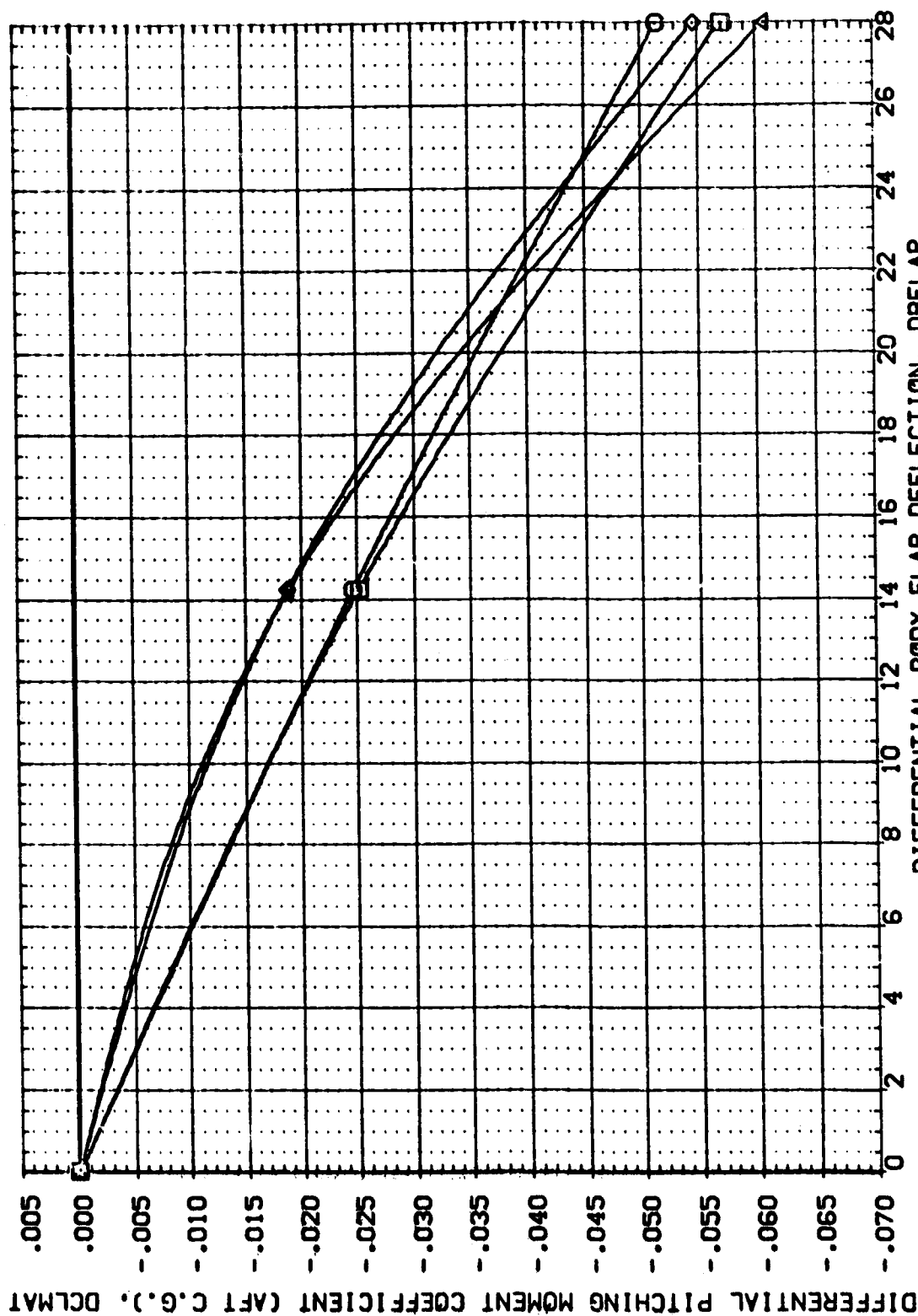


FIGURE 10 139B ORBITER BODY FLAP DEFLECTION INCREMENTAL EFFECTS

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	RUDDER	SPOILER	AILERON	REFERENCE INFORMATION
(RPP002)	CA17.L1PT138.098 3.(8 9C7F54)(V107E23)(V7RS)	.000	.000	24.920	.000	SREF 87.1560 50. IN.
(RPP021)	CA17.L1PT138.098 3.(8 9C7F54)(V107E23)(V7RS)	7.500	.000	24.920	.000	LREF 19.3545 INCHES
						BREF 14.0572 INCHES
						XMRP 12.5770 INCHES
						YMRP .0000 INCHES
						ZMRP 6.0000 INCHES
						SCALE .0150 SCALE

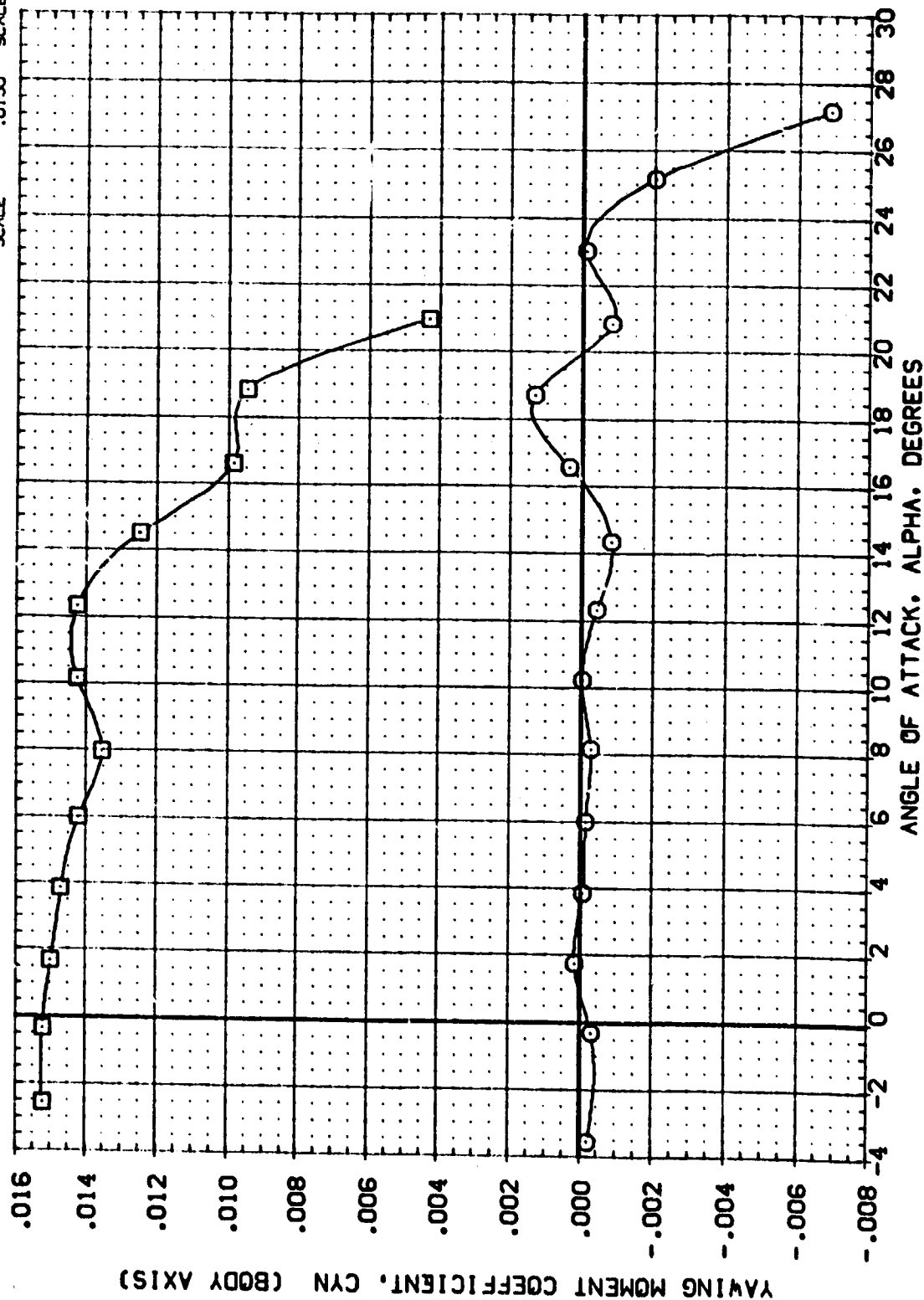


FIGURE 11 139B ORBITER LATERAL DIRECTIONAL YAW POLAR

(A)RN/L = 2.50

DATA SET SYMBOL: (RPP002) (RPP021)

CONFIGURATION DESCRIPTION: 0A17.LIPT138.0R8 3.(B1SC7F5M4)(V107E23)(V7R5) 0A17.LIPT138.0R8 3.(B1SC7F5M4)(V107E23)(V7R5)

BETA: 7.500

RUDDER: .000

SPORK: 24.520

AILION: .000

REFERENCE INFORMATION:

UNIT	INCHES	INCHES
SWT	87.1580	50. IN.
WGT	19.3545	INCHES
SWT	14.0502	INCHES
WGT	12.5770	INCHES
SWT	6.0000	INCHES
WGT	6.0000	INCHES
SCALE	.0150	SCALE

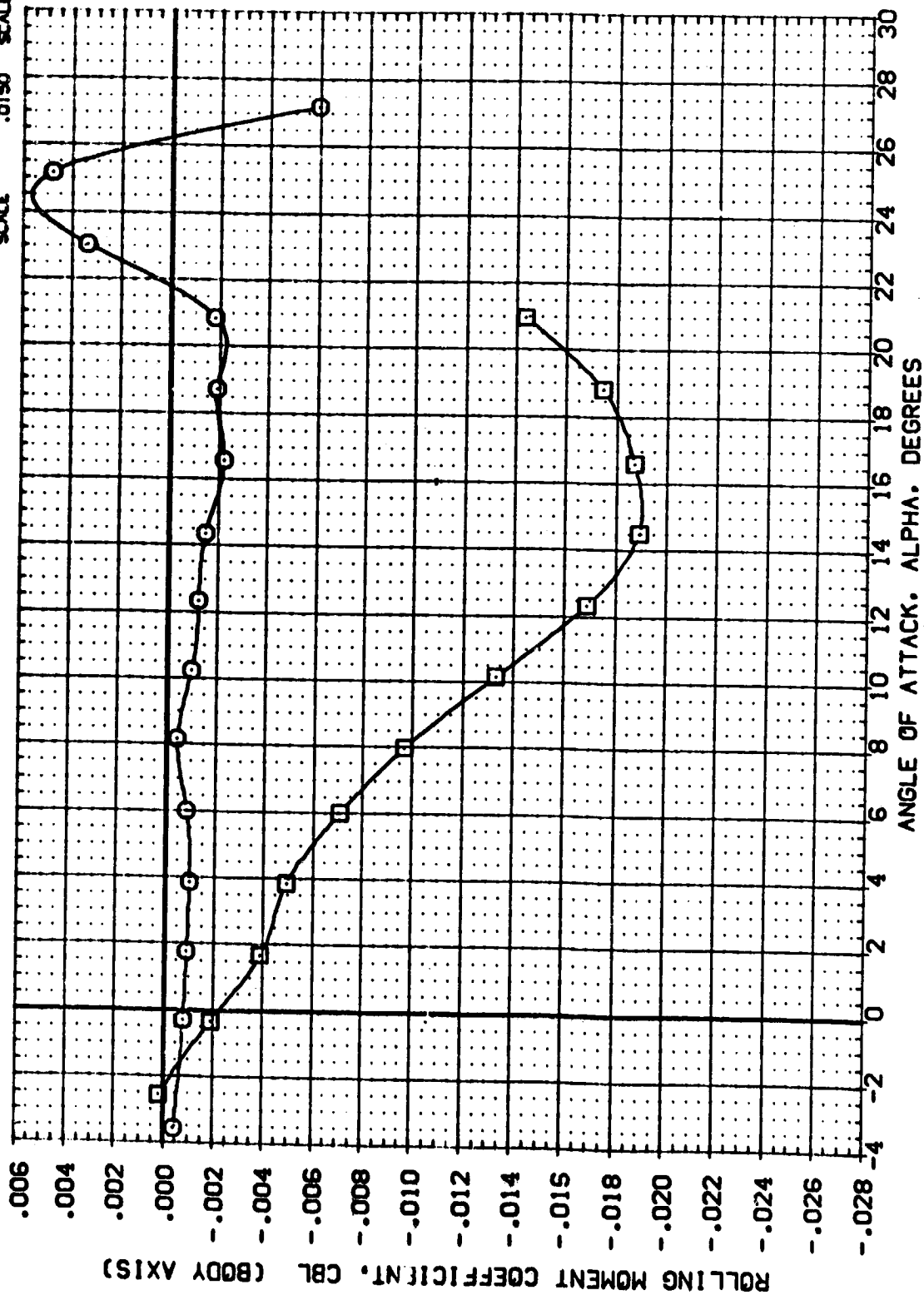


FIGURE 11 139B ORBITER LATERAL DIRECTIONAL YAW POLAR

(A)RN/L = 2.50

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		BETA		RUDDER		SPDRK		AILRON		REFERENCE INFORMATION	
(RPP02)	8	GA17.LTPT132.098	3.(B19CTFSM4)(V107E23)(V7R5)	.000	.000	.000	.000	24.920	.000	SREF	87.1560	SQ.IN.	
(RPP021)		GA17.LTPT138.098	3.(B19CTFSM4)(V107E23)(V7R5)	7.500	.000	.000	.000	24.920	.000	LREF	19.3545	INCHES	
										BREF	14.0502	INCHES	
										XMRP	12.5770	INCHES	
										YMRP	.0000	INCHES	
										ZMRP	6.0000	INCHES	
										SCALE	.0150	SCALE	

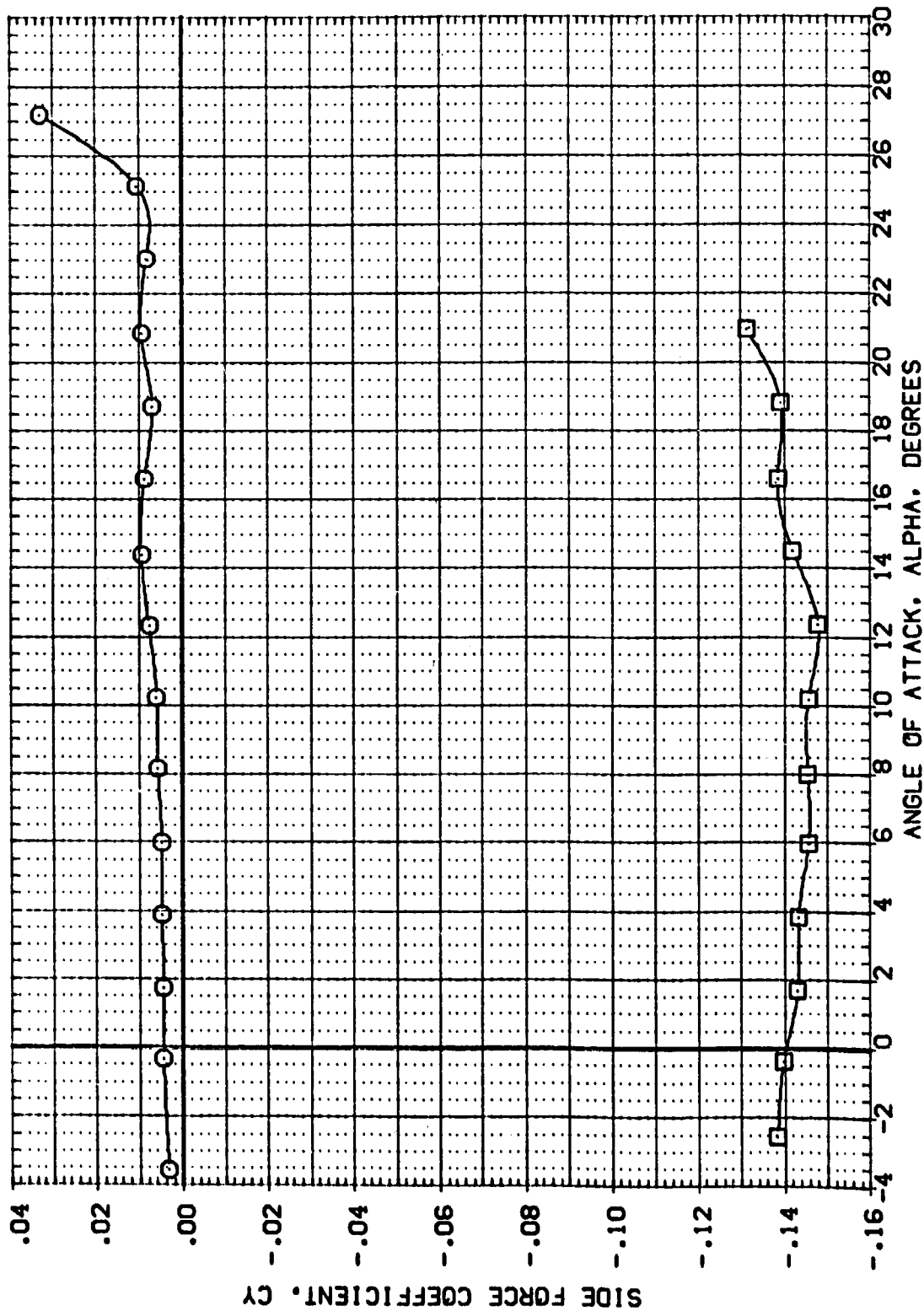


FIGURE 11 139B ORBITER LATERAL DIRECTIONAL YAW POLAR

(AJRN/L = 2.50

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		BETA		RUDDER		SPDBRK		AILRON		REFERENCE INFORMATION	
(RPP02)	CA17.LTPT138.0RB	3.(B19C7F5M4)	(V107E23)(V7R5)	.000	.000	.000	.000	24.920	.000	SREF	87.1560	SQ.IN.	
(RPP021)	CA17.LTPT138.0RB	3.(B19C7F5M4)	(V107E23)(V7R5)	7.500	.000	.000	.000	24.920	.000	LREF	19.3545	INCHES	
										BREF	14.0502	INCHES	
										YREF	12.5770	INCHES	
										ZREF	6.0000	INCHES	
										SCALE	.0150	INCHES	

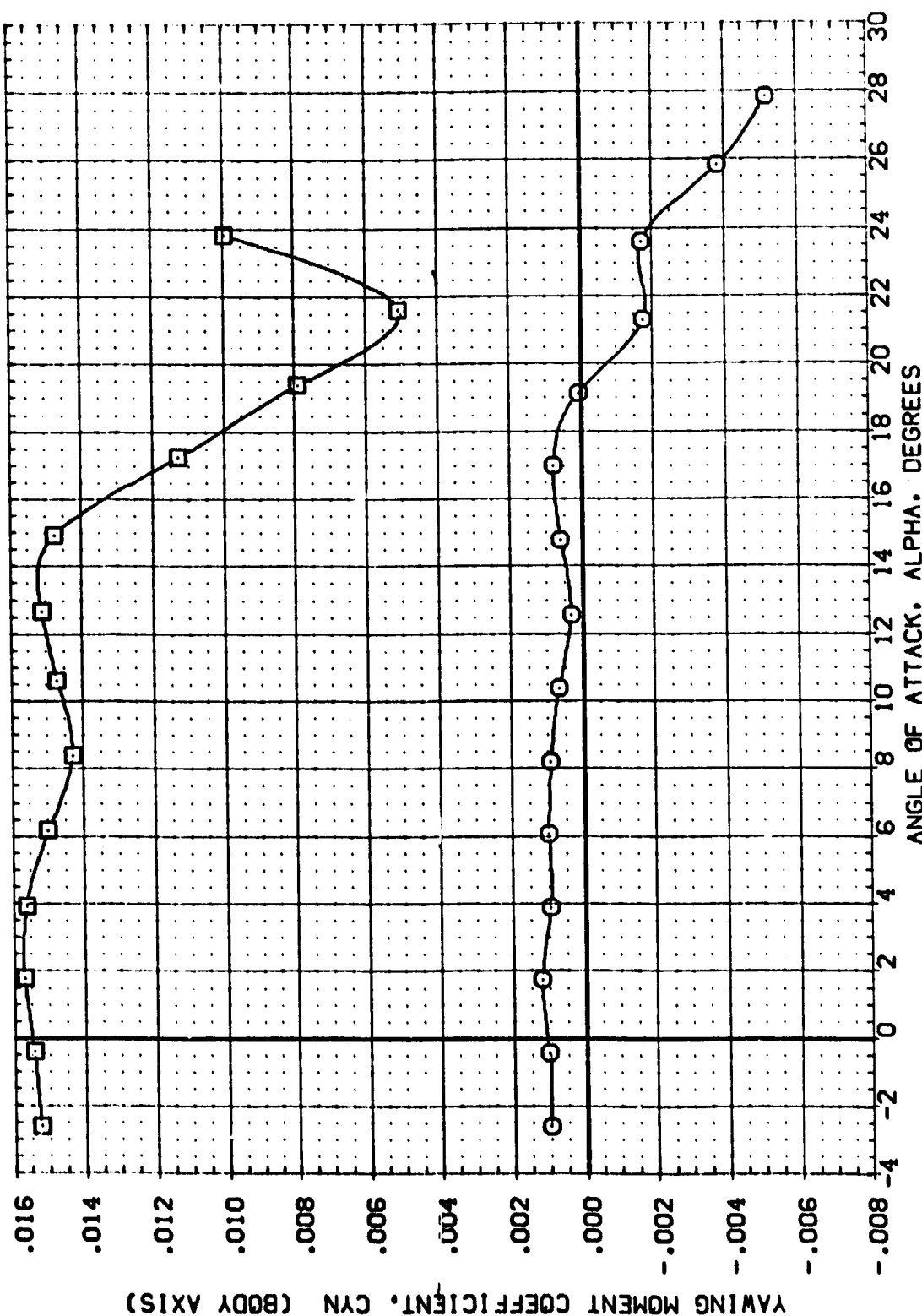


FIGURE 11 139B ORBITER LATERAL DIRECTIONAL YAW POLAR

(AJRN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	RUDDER	SPDBRK	AILRON	REFERENCE INFORMATION
(RPP002)	CA17-LTPT138.0RB 3.(B19C7F5M4)(V107E23)(V7RS)	.000	.000	24.920	.000	SREF 87.1560 SQ.IN.
(RPP021)	CA17-LTPT138.0RB 3.(B19C7F5M4)(V107E23)(V7RS)	7.500	.000	24.920	.000	LREF 19.3545 INCHES
						BREF 4.0502 INCHES
						XMRP 12.5770 INCHES
						YMRP 6.0000 INCHES
						ZMRP 6.0000 INCHES
						SCALE .0150

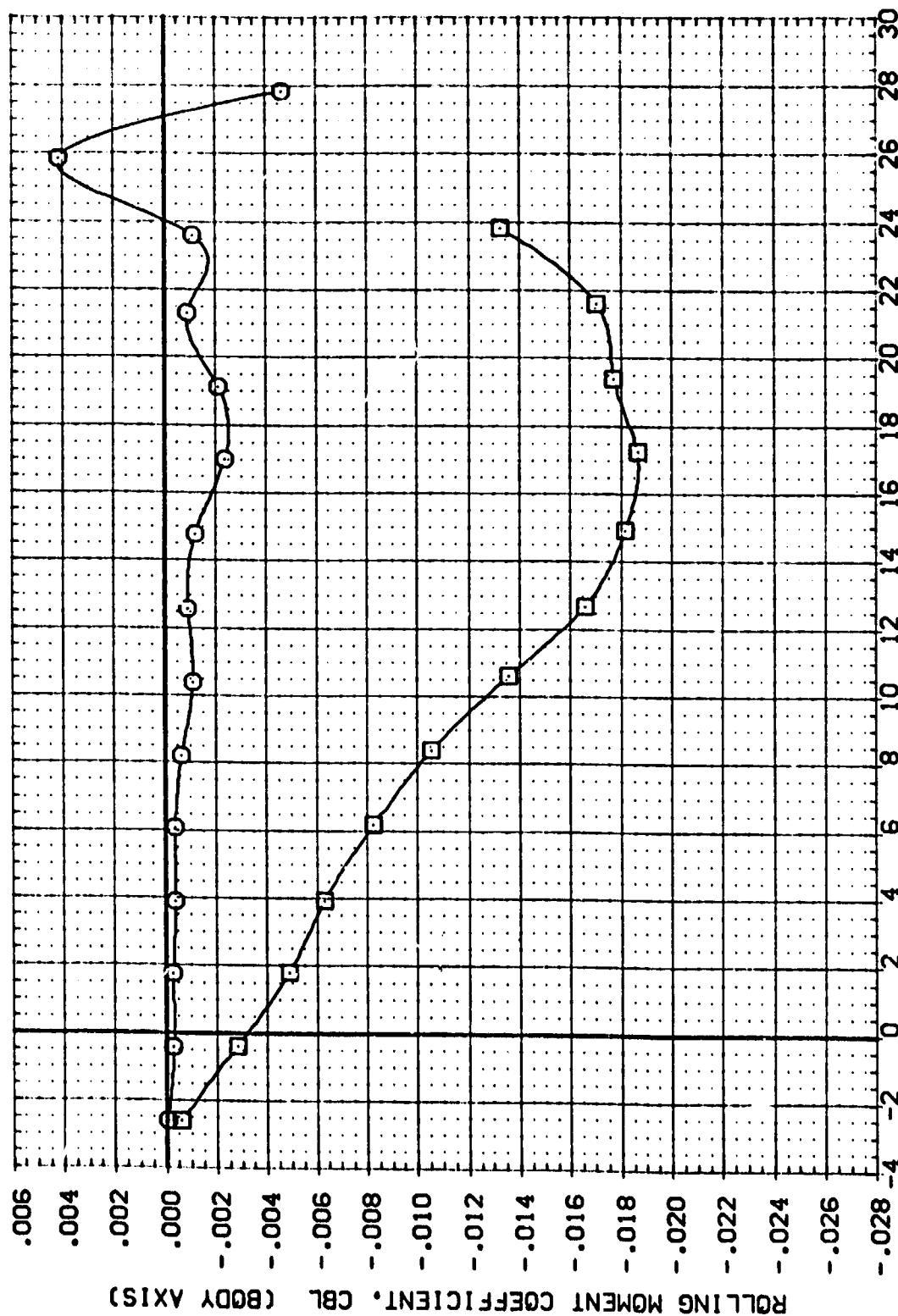


FIGURE 11 139B ORBITER LATERAL DIRECTIONAL YAW POLAR

(AJRN/L = 4.70

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		BETA		RUDDER		SPDRBK		AILRON		REFERENCE INFORMATION	
(RPO02)	(RPO02)	CA17ALPT138.058	3.(B1SC7F5M)(V107E23)(V7R5)	.000	.000	.000	.000	.000	.000	.000	.000	SREF	87.1560
(RPO02)	(RPO02)	CA17ALPT138.058	3.(B1SC7F5M)(V107E23)(V7R5)	7.500	.000	.000	.000	.000	.000	.000	.000	UREF	19.3545
												BREF	14.0502
												XMRP	12.5770
												YMRP	.0000
												ZMRP	.0000
												SCALE	.0150
													INCHES
													INCHES
													SCALE

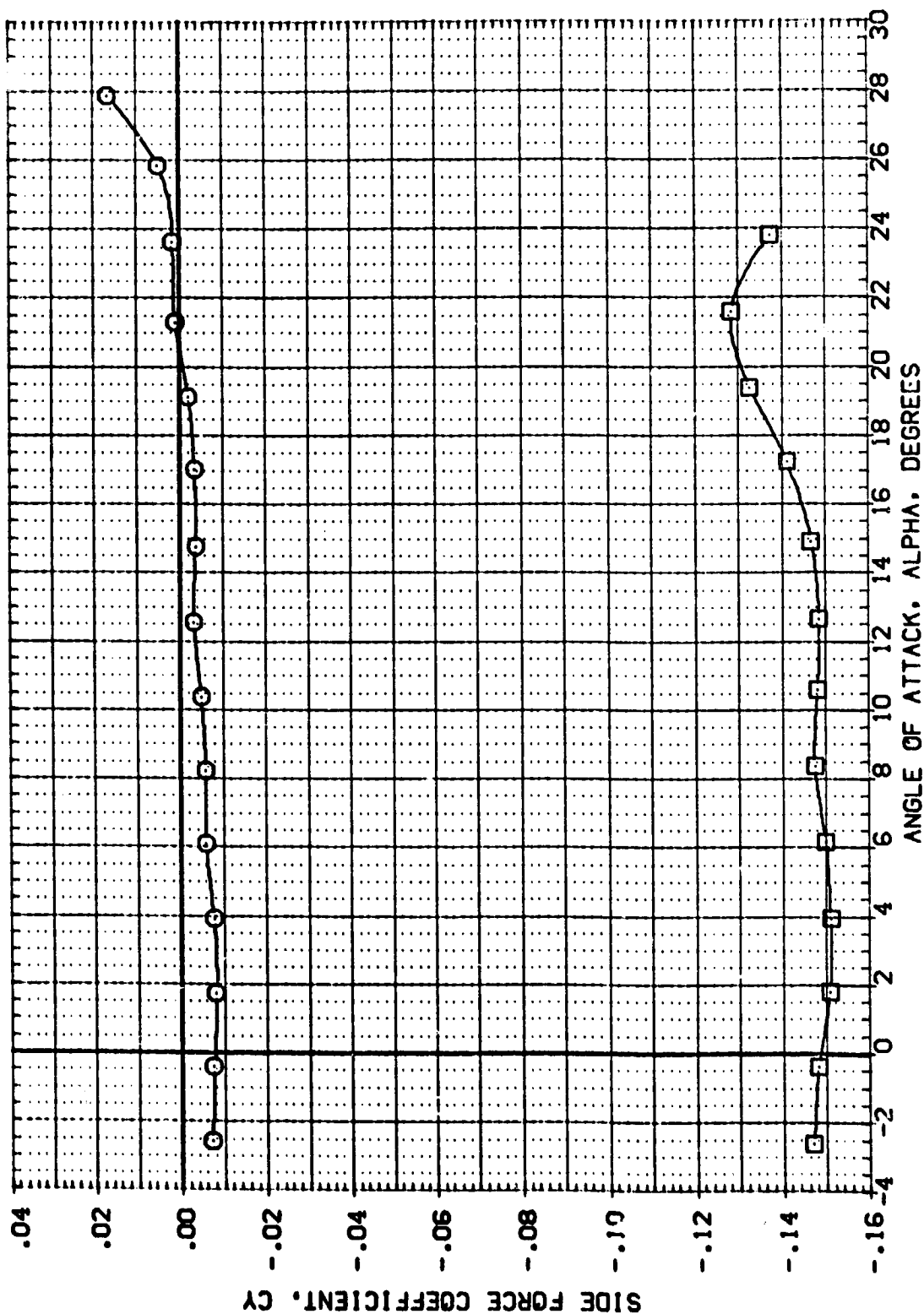


FIGURE 11 139B ORBITER LATERAL DIRECTIONAL YAW POLAR

(A)RN/L = 4.70



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	RUDDER	SPOBRK	AILRON	REFERENCE INFORMATION
(RPP02)	0A17.LTPT138.CRB 3.(B)9C7F5M4)(V107E23)(V7R5)	.000	.000	24.920	.000	SREF 87.1560 SQ. IN.
(RPP02)	0A17.LTPT138.CRB 3.(B)9C7F5M4)(V107E23)(V7R5)	7.500	.000	24.920	.000	LREF 19.3545 INCHES
						BREF 14.0502 INCHES
						XPRP 12.5770 INCHES
						YPRP .0000 INCHES
						ZPRP 6.0000 INCHES
						SCALE .0150

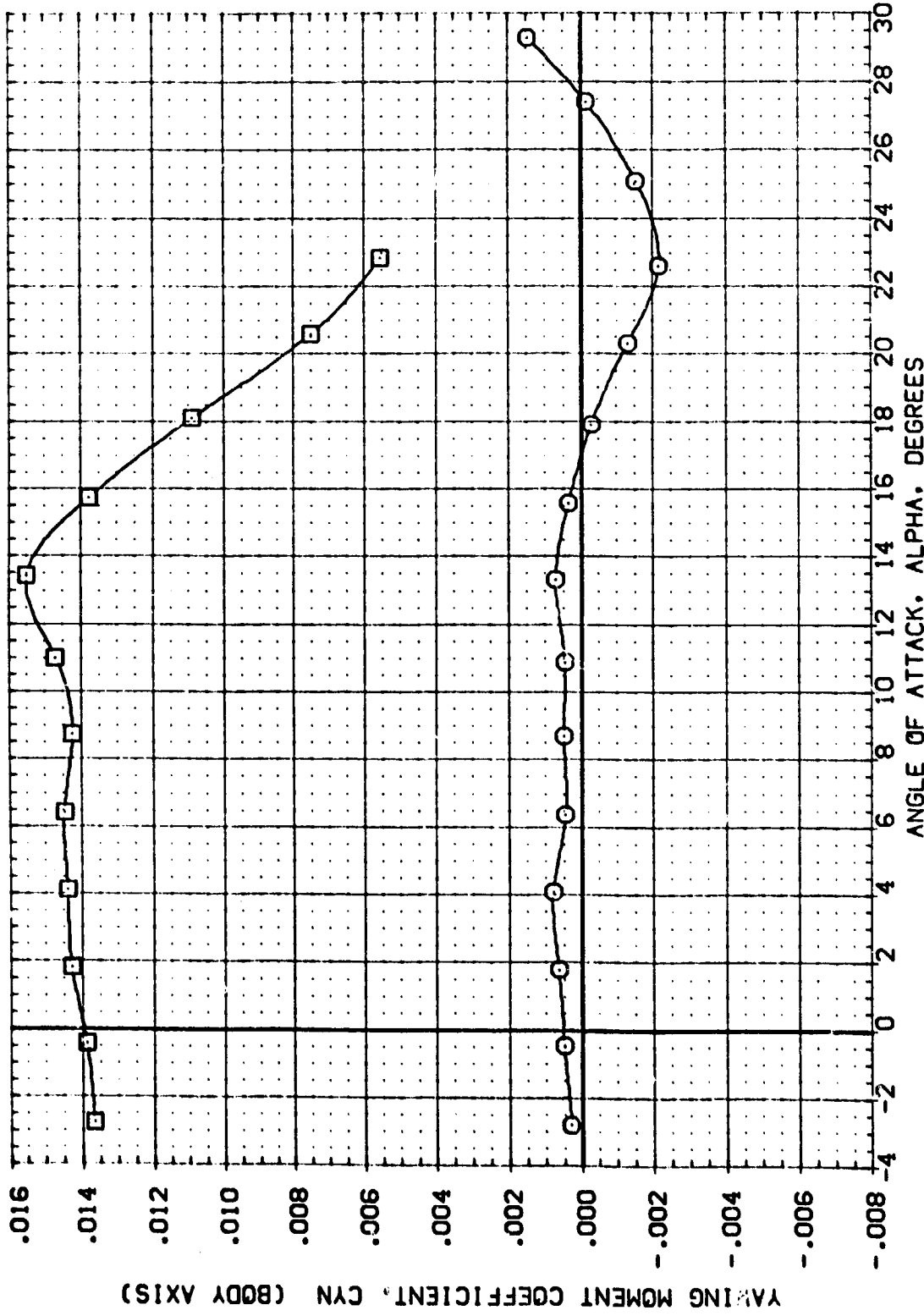


FIGURE 11 1398 ORBITER LATERAL DIRECTIONAL YAW POLAR

(A)RN/L = 10.00

DATA SET SYMBOL: C17.LTPT138.DRB 3.(B19C7F5H4)(V107E23)(V7RS)
 (REP002) C17.LTPT138.DRB 3.(B19C7F5H4)(V107E23)(V7RS)
 (REP002)

CONFIGURATION DESCRIPTION

BETA: .000
 7.500

RUDDER: .000
 .000

SPDBRK: 24.920
 24.920

AILRON: .000
 .000

REFERENCE INFORMATION

SREF: 87.1560 SQ. IN.
 XREF: 19.3545 INCHES
 YREF: 14.1502 INCHES
 XMRP: 12.5770 INCHES
 YMRP: .0000 INCHES
 ZMRP: 6.0000 INCHES
 SCALE: .0150

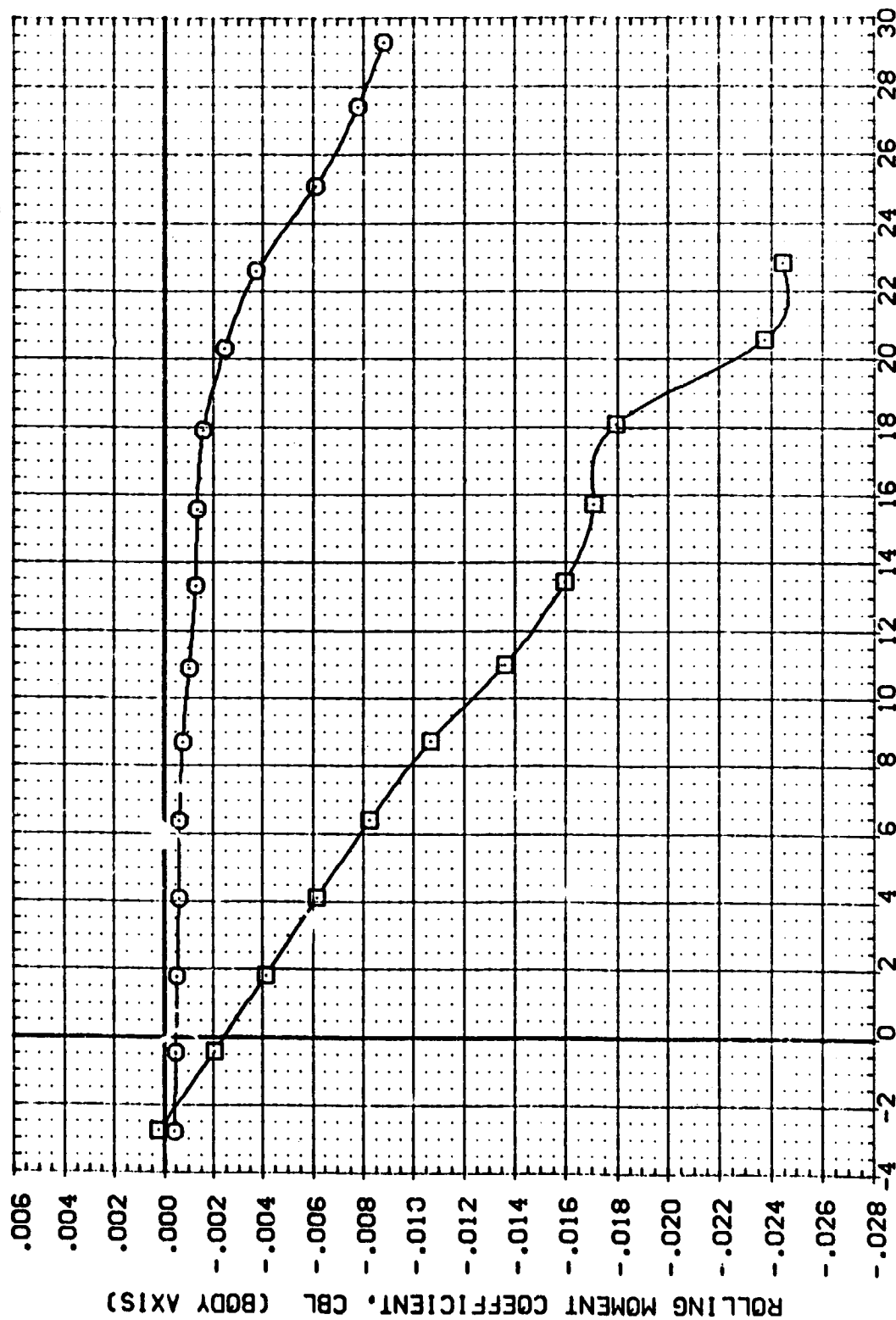


FIGURE 11 139B ORBITER LATERAL DIRECTIONAL YAW POLAR

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	RUDER	SPOILER	AILERON	REFERENCE INFORMATION	
(RPP002)	0A17.LTPT138.058-3.(B19C7F5M4)(V107E23)(V7R5)	.000	.000	24.920	.000	SREF	87.1562 SO IN.
(RPP021)	0A17.LTPT138.058-3.(B19C7F5M4)(V107E23)(V7R5)	7.500	.000	24.920	.000	LREF	19.3543 IN-ES
						BREF	14.0502 IN-ES
						XMRP	12.5770 IN-ES
						YMRP	.0000 IN-ES
						ZMRP	6.0000 IN-ES
						SCALE	.0150 SCALE

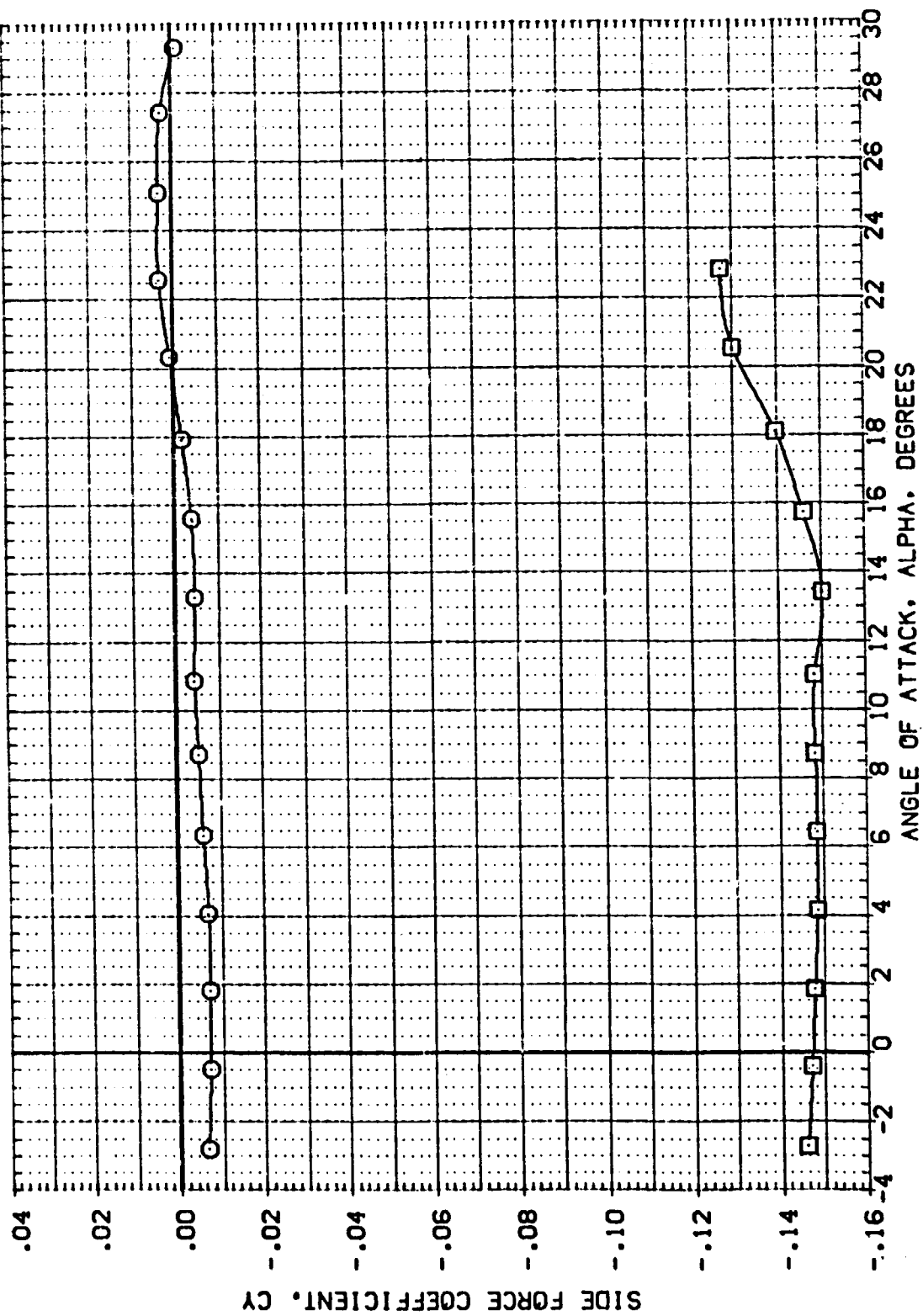


FIGURE 11 139B ORBITER LATERAL DIRECTIONAL YAW POLAR

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	RUDDER	SPOILER	AILERON	REFERENCE INFORMATION
(RPP002)	CA17.LTPT138.CRB 3.(B19C7F5M)(V107E23)(V7RS)	.000	.000	24.920	.000	SREF 87.1560 SQ.IN.
(RPP021)	CA17.LTPT138.CRB 3.(B19C7F5M)(V107E23)(V7RS)	7.500	.000	24.920	.000	LREF 19.7545 INCHES
						BREF 14.0552 INCHES
						XPRP 12.5770 INCHES
						YPRP .0000 INCHES
						ZPRP 6.0000 INCHES
						SCALE .0150 SCALE

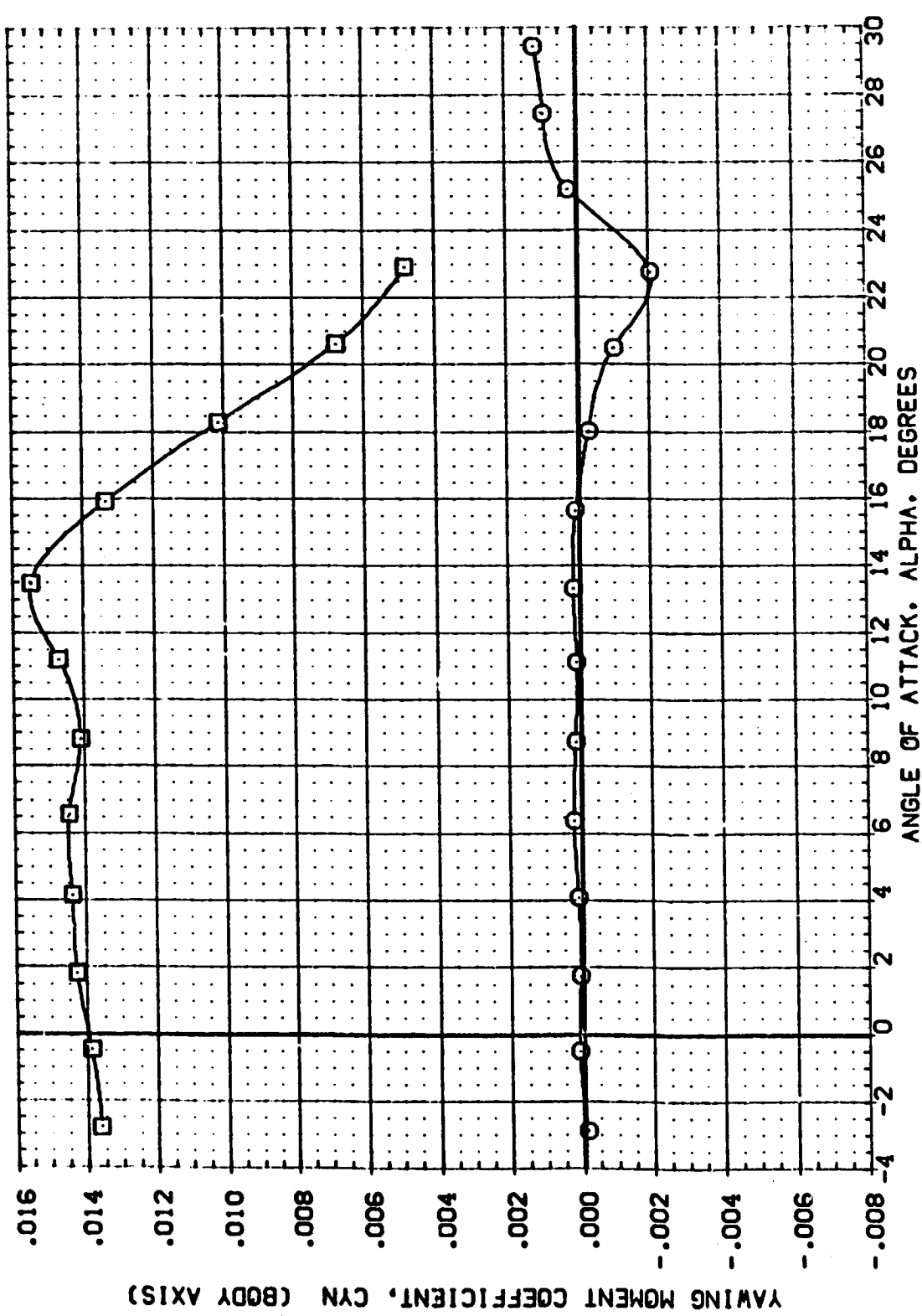


FIGURE 11 139B ORBITER LATERAL DIRECTIONAL YAW POLAR

(A)RN/L = 12.50

DATA SET SY-80. CONFIGURATION DESCRIPTION
 (RPP002) CA17.L1PT138.DRB 3.(B)9C7F5M4)(V107E23)(V7RS)
 (RPP021) CA17.L1PT138.DRB 3.(B)9C7F5M4)(V107E23)(V7RS)

DATA SET SY-80. CONFIGURATION DESCRIPTION
 (RPP002) CA17.L1PT138.DRB 3.(B)9C7F5M4)(V107E23)(V7RS)
 (RPP021) CA17.L1PT138.DRB 3.(B)9C7F5M4)(V107E23)(V7RS)

DATA SET SY-80. CONFIGURATION DESCRIPTION
 (RPP002) CA17.L1PT138.DRB 3.(B)9C7F5M4)(V107E23)(V7RS)
 (RPP021) CA17.L1PT138.DRB 3.(B)9C7F5M4)(V107E23)(V7RS)

DATA SET SY-80. CONFIGURATION DESCRIPTION
 (RPP002) CA17.L1PT138.DRB 3.(B)9C7F5M4)(V107E23)(V7RS)
 (RPP021) CA17.L1PT138.DRB 3.(B)9C7F5M4)(V107E23)(V7RS)

DATA SET SY-80. CONFIGURATION DESCRIPTION
 (RPP002) CA17.L1PT138.DRB 3.(B)9C7F5M4)(V107E23)(V7RS)
 (RPP021) CA17.L1PT138.DRB 3.(B)9C7F5M4)(V107E23)(V7RS)

DATA SET SY-80. CONFIGURATION DESCRIPTION
 (RPP002) CA17.L1PT138.DRB 3.(B)9C7F5M4)(V107E23)(V7RS)
 (RPP021) CA17.L1PT138.DRB 3.(B)9C7F5M4)(V107E23)(V7RS)

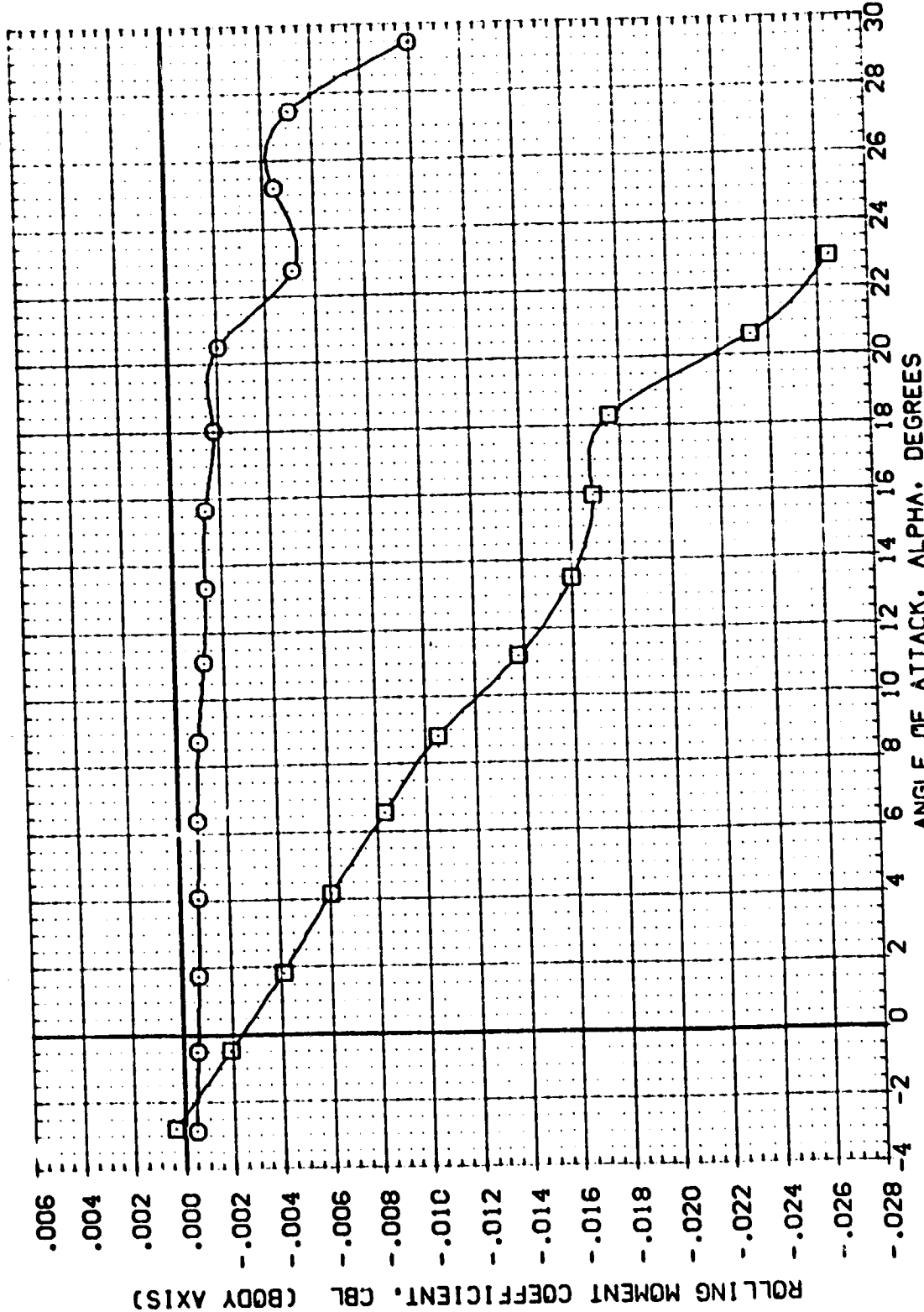


FIGURE 11 139B ORBITER LATERAL DIRECTIONAL YAW POLAR

(A)RN/L = 12.50

0A17.LTPT138.D88 3.(B19C7F5M4)(V10TE23)(V7RS)
0A17.LTPT138.D88 3.(B19C7F5M4)(V10TE23)(V7RS)

BETA
7.500

SPD&X
24.920
24.920

AIRLION
 .000
 .000

REFERENCE INFORMATION		
SREF	87.1560	50. IN.
LREF	19.2545	INCHES
BREF	14.0502	INCHES
XMRP	12.5770	INCHES
YMRP	.0000	INCHES
ZMRP	6.0000	INCHES
	.0150	SCALE

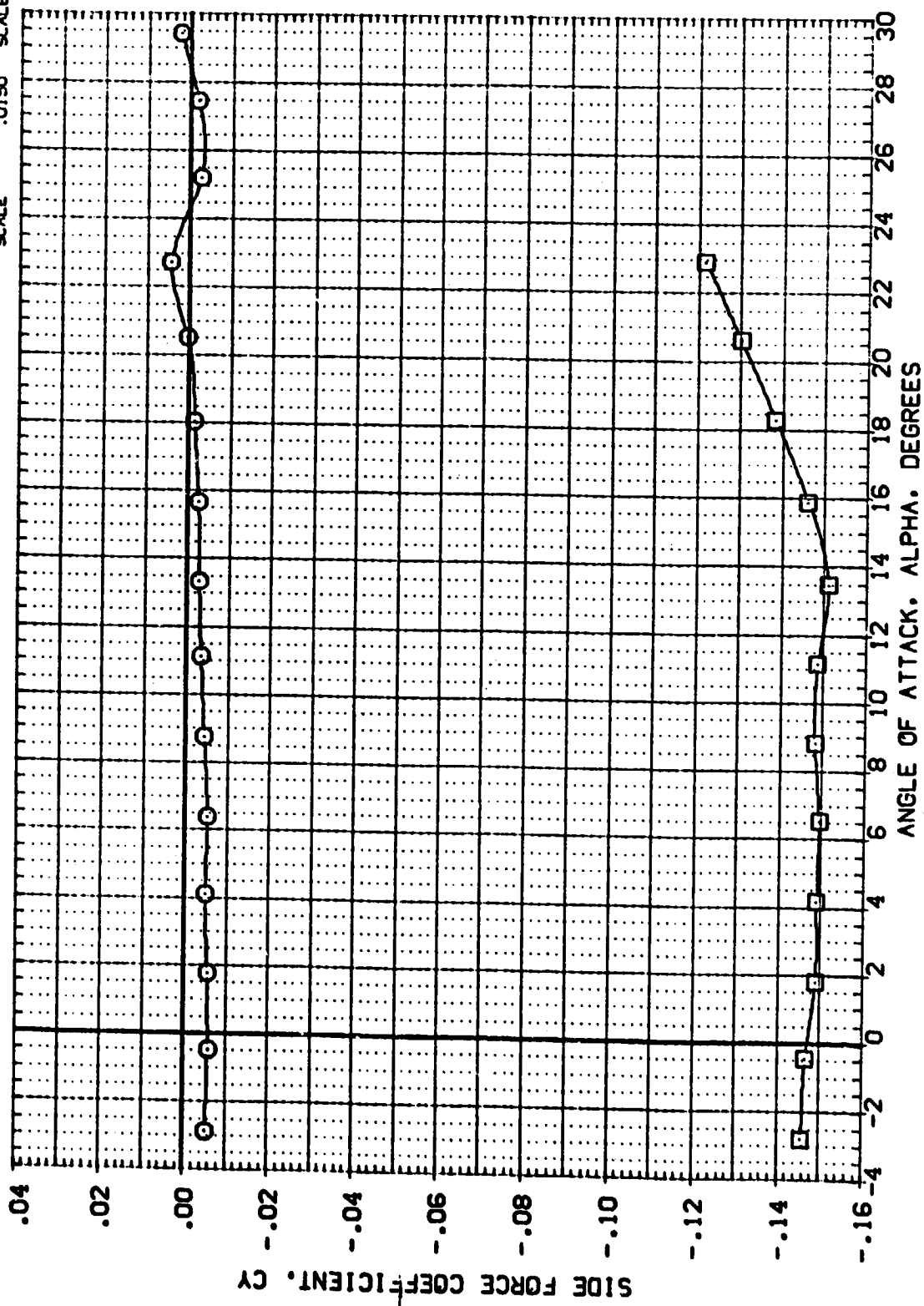
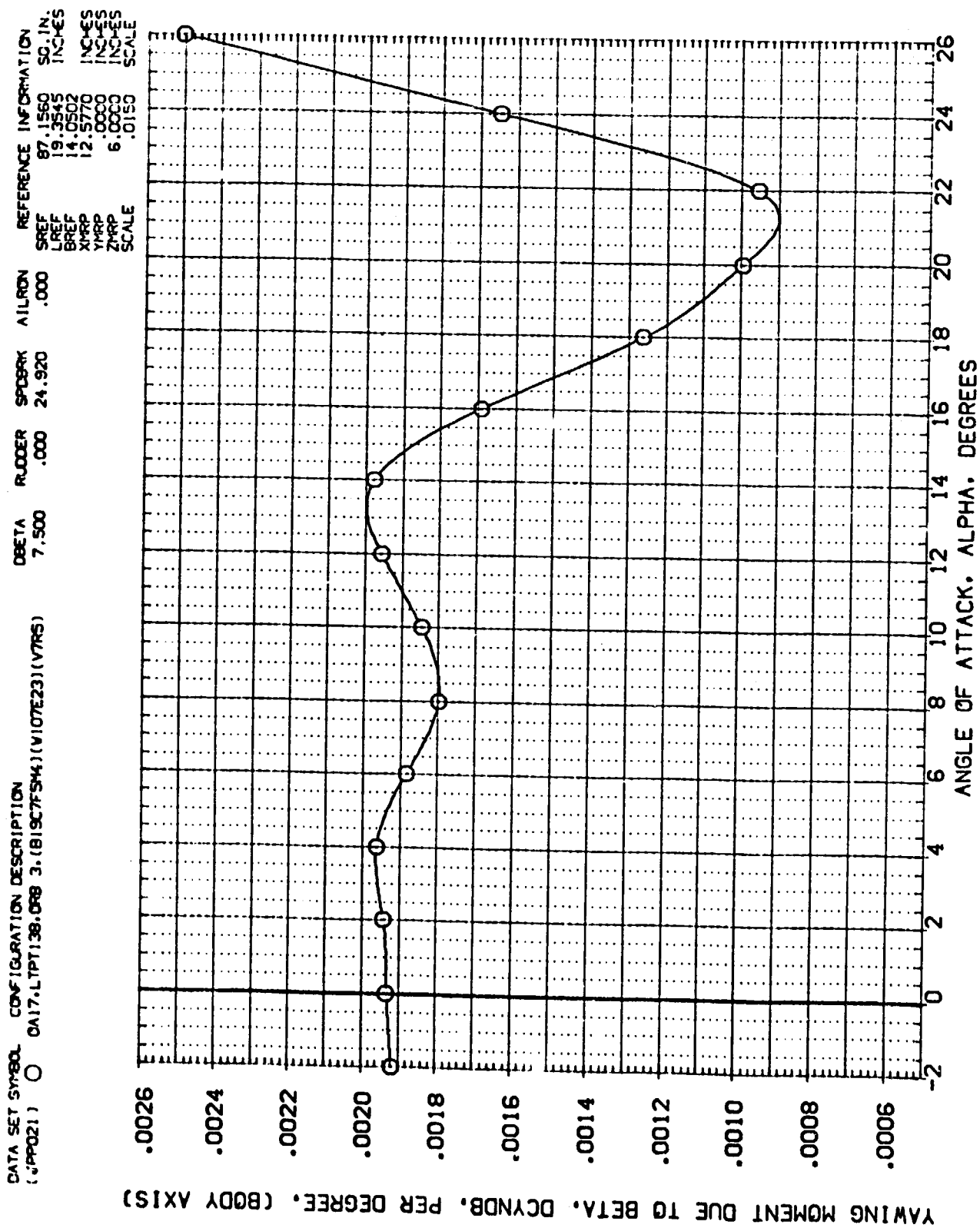


FIGURE 11 139B ORBITER LATERAL DIRECTIONAL YAW POLAR

$$[A]_{RN/L} = 12.50$$


$$[A]_{RN/L} = 4.70$$

DATA SET SYMBOL ○ CA17.LTPT138.598 3.(B19C7F544)(V107EZ3)(V7R5)

CONFIGURATION DESCRIPTION
 DBETA 7.500
 RUDDER 24.920
 SPDBRK .000
 AILRON .000

REFERENCE INFORMATION
 SREF 97.1560 50. IN.
 LREF 19.3545 INCHES
 BREF 14.0502 INCHES
 XPRP 12.5770 INCHES
 YPRP .0000 INCHES
 ZPRP 6.0000 INCHES
 SCALE .0150

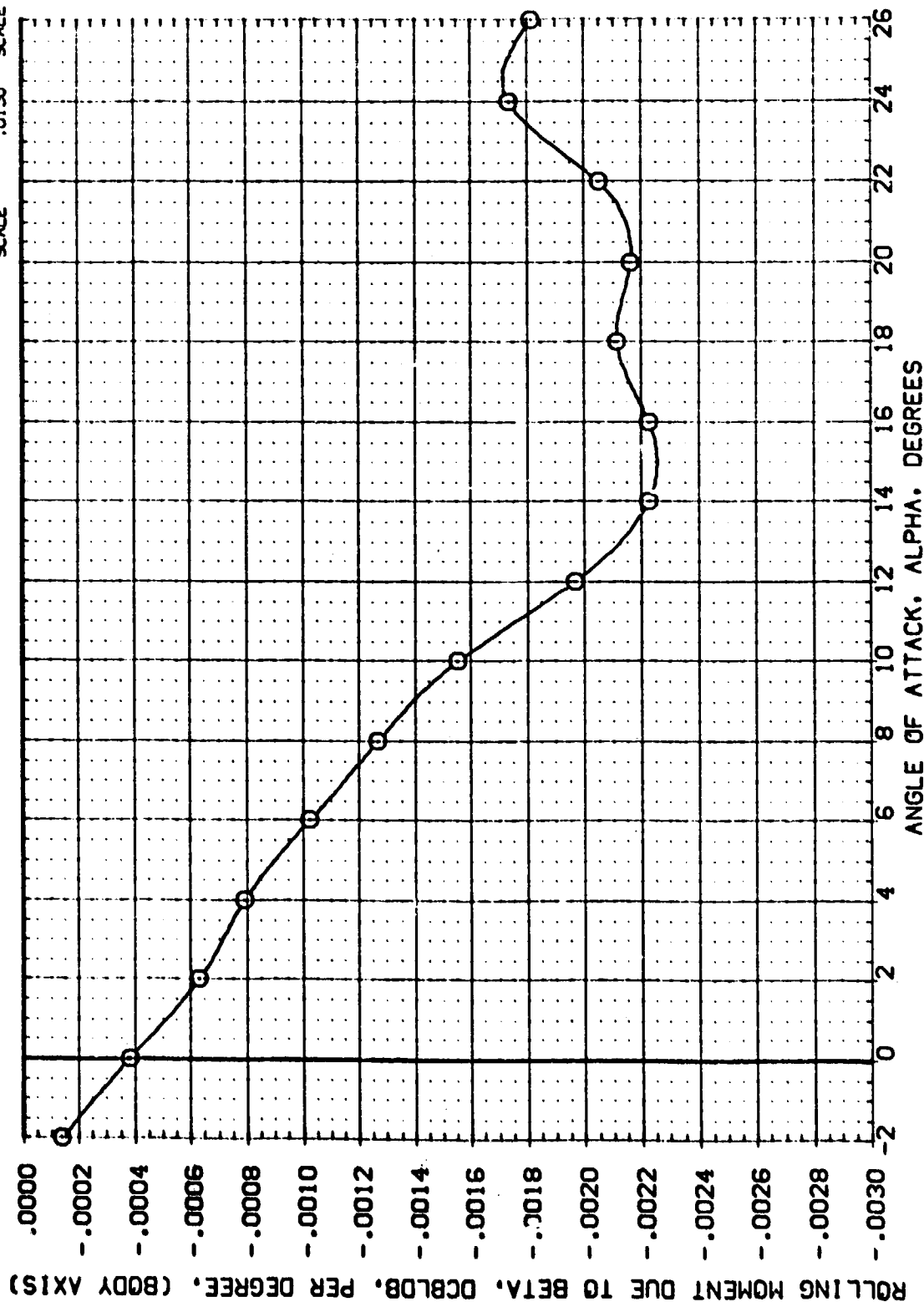
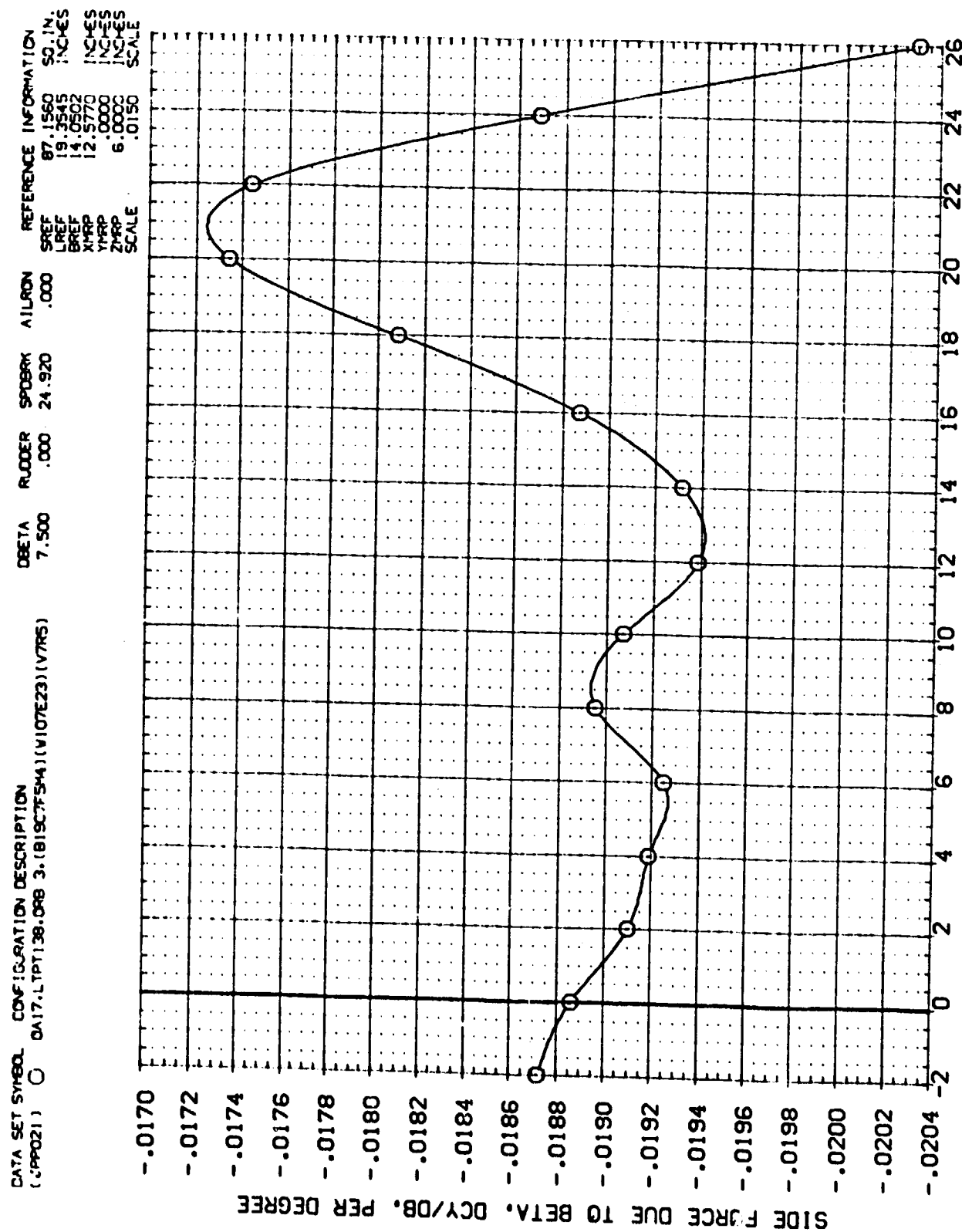


FIGURE 12 139B ORBITER LATERAL DIRECTIONAL DERIVATIVES

(A)RN/L = 4.70


$$(\Delta)_{RN/L} = 4.70$$

DATA SET SYMBOL (JPP021) 0
 CONFIGURATION DESCRIPTION QAI7.LTPT138.DR8 3.(B19CTFSM4)(V107E23)(V7R5)
 DBETA 7.500
 RUDDER .000
 SPOBRK 24.920
 AIRLON .000
 REFERENCE INFORMATION
 SREF 87.1560 50. IN.
 LREF 19.3545 INCHES
 SREF 14.0502 INCHES
 XTRP 12.5770 INCHES
 YTRP 6.0000 INCHES
 ZTRP 6.0000 INCHES
 SCALE .0150

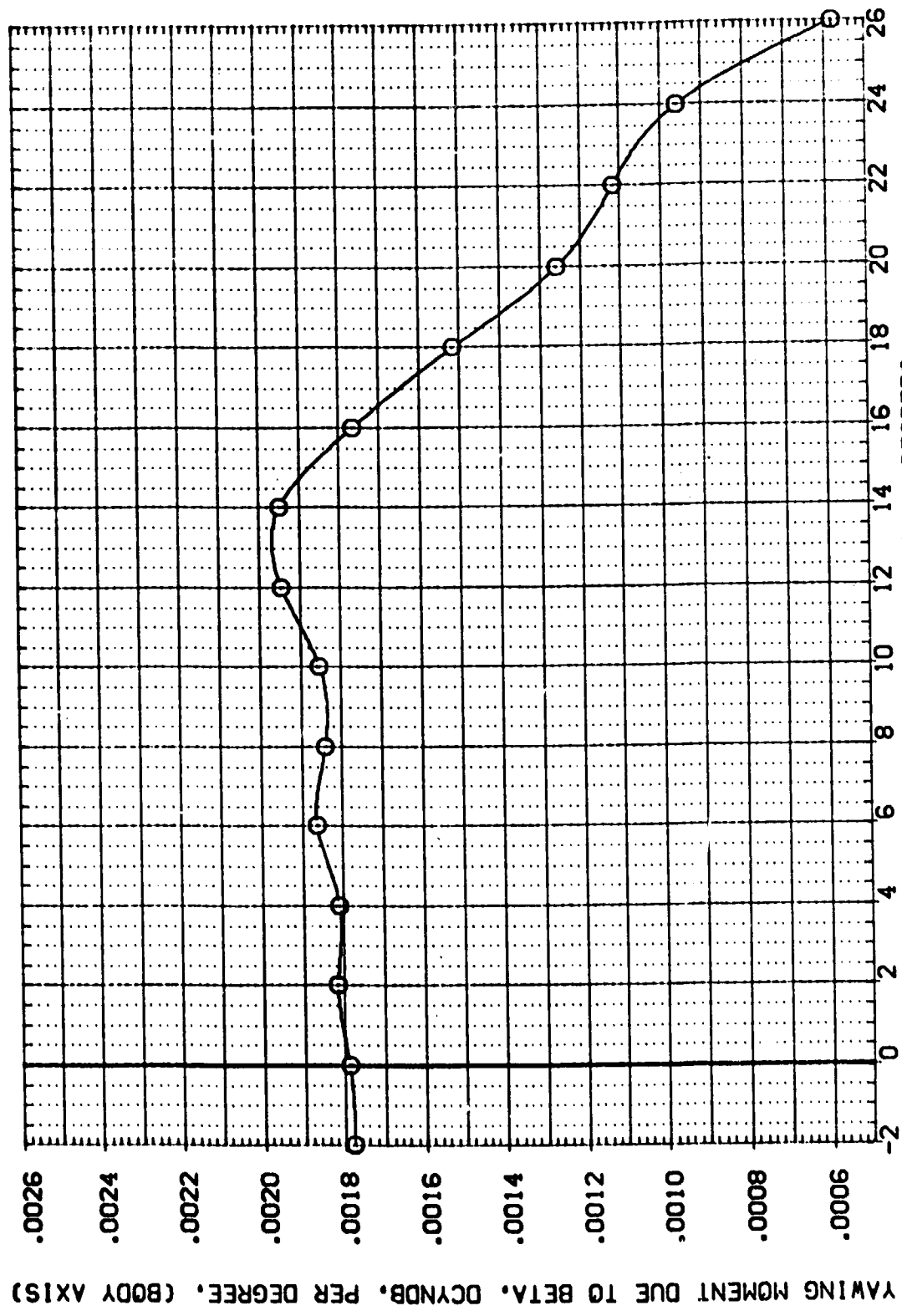


FIGURE 12 139B ORBITER LATERAL DIRECTIONAL DERIVATIVES

(A)RN/L = 10.00



DATA SET SYMBOL CONFIGURATION DESCRIPTION DBETA RUDDER SPODBK AILRON REFERENCE INFORMATION
(JPP021) ○ 0A17.LTPT138.ORB 3.(B1SC7F5M4:(V107E23))(V7R5) 7.500 .000 24.920 .000 SREF 87.1560 SC.IN.
LREF 19.3545 INCHES
BREF 14.0502 INCHES
XRRP 12.5770 INCHES
YRRP .0000 INCHES
ZRRP 6.0000 INCHES
SCALE .0150 SCALE

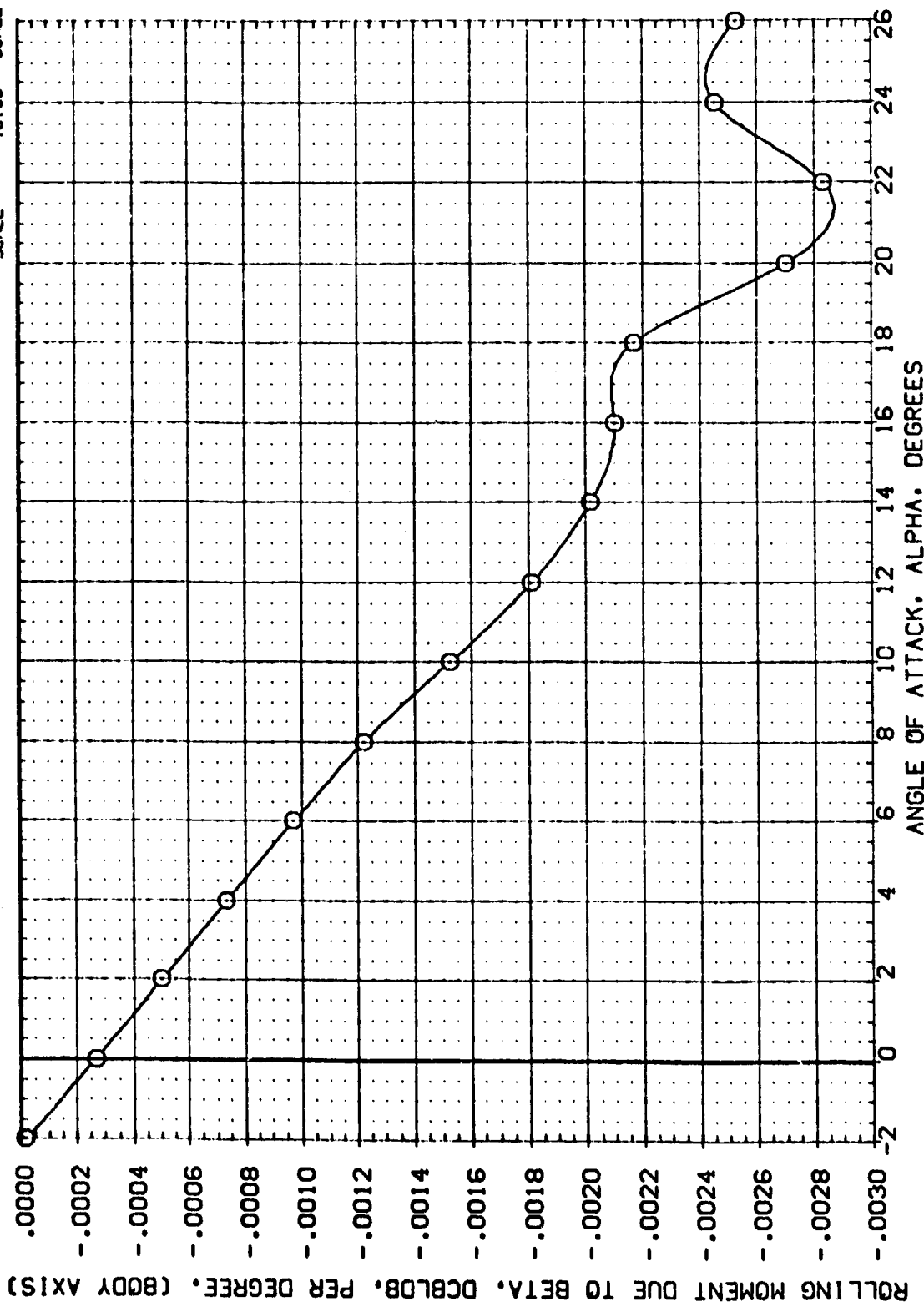
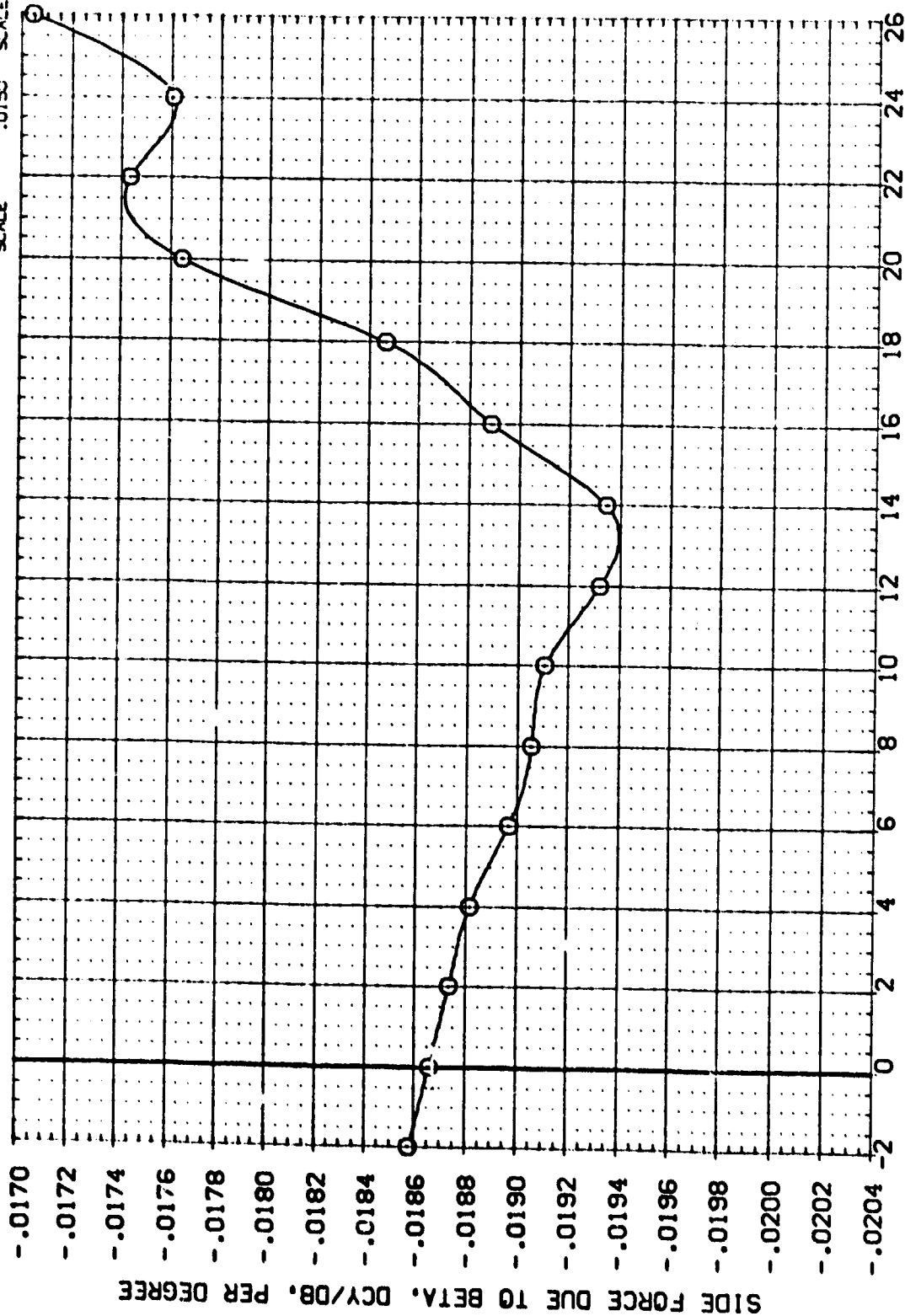


FIGURE 12 139B ORBITER LATERAL DIRECTIONAL DERIVATIVES

(AJRN/L = 10.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(JPP021) ○ DA17.LTPT138.DSB 3.(B19C7F5H4)(V107E23)(V7R5)

DETA RUDDER SPOBRK AILRON REFERENCE INFORMATION
7.500 .000 24.920 .000 SREF 87.1560 50. IN.
LREF 19.3545 1 INCHES
BREF 14.0502
XMRP 12.5770 INCHES
YMRP .0000 INCHES
ZMRP 6.0000 INCHES
SCALE .0150 SCALE



ANGLE OF ATTACK, ALPHA, DEGREES

FIGURE 12 1398 ORBITER LATERAL DIRECTIONAL DERIVATIVES

(A)RN/L = 10.00

0A17.LIPT138.ORB 3.(B21C7F5M4)(W107E23)(V7R5) (APP009)

SYMBOL	RV/L	PARAMETRIC VALUES				REFERENCE INFORMATION			
		BETA	.000	MACH	.251	SREF	87.1560	50.1 IN.	
○	2.330	ELEVTR	.000	AILRON	.000	LREF	19.3545	INCHES	
□	4.593	RJDER	.000	BOFLAP	-14.250	SRREF	14.0502	INCHES	
◇	9.933	SPCRK	.000			YMRP	12.5770	INCHES	
△	11.630		24.920			ZMRP	6.0000	INCHES	
						SCALE	.0150	SCALE	

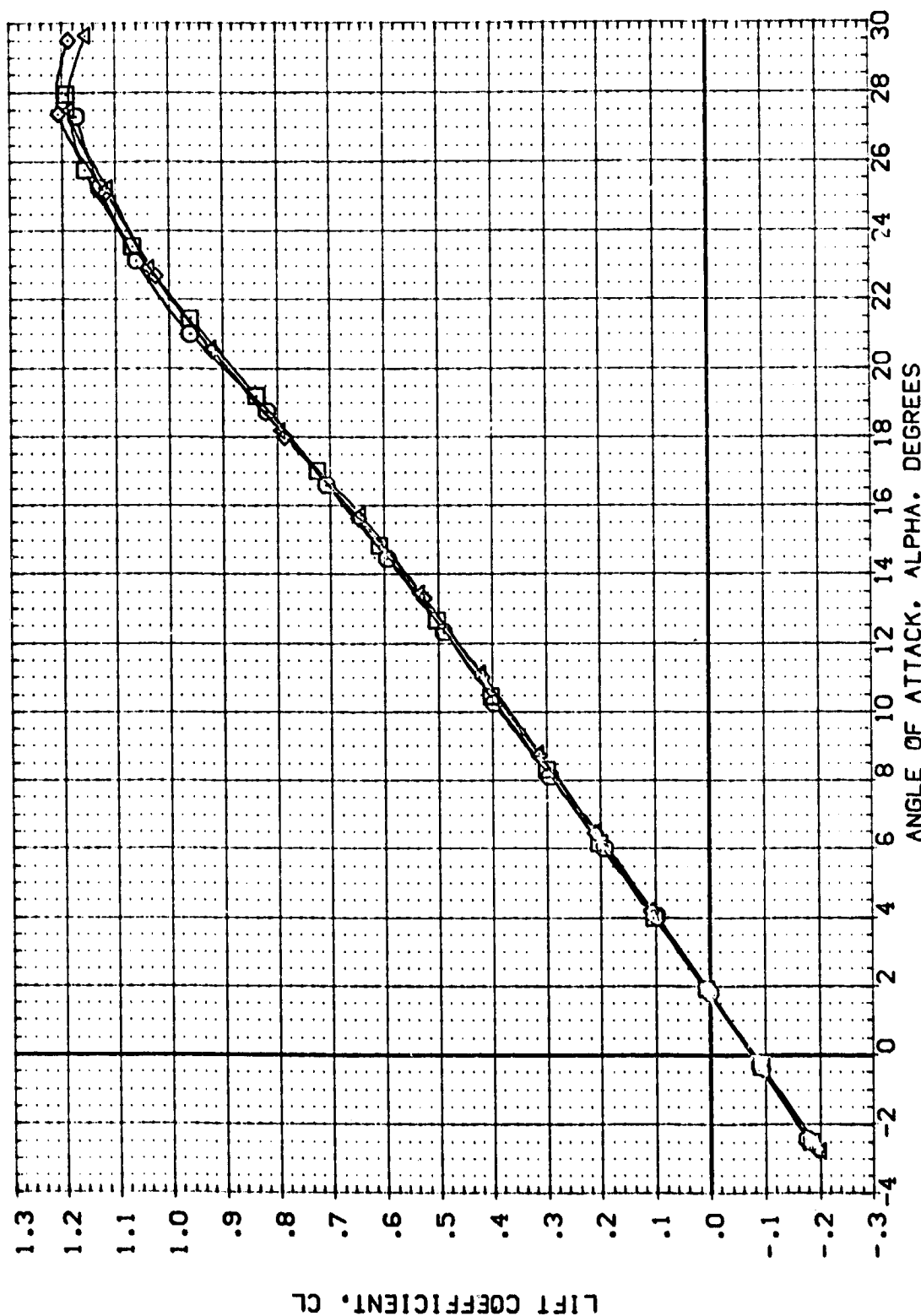


FIGURE 13 1398 ORBITER (MOD NOSE) TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

PARAMETRIC VALUES				REFERENCE INFORMATION			
SYMBOL	RV/L	BETA	MACH	SREF	97.1560	50. IN	
○	2.330	.000	.251	UREF	19.3545	INCHES	
□	4.593	.000	.000	BREF	14.0502	INCHES	
◇	9.933	.000	-14.250	XMRP	12.5770	INCHES	
△	11.630	24.920		YMRP	.0000	INCHES	
				ZMRP	6.0000	INCHES	
				SCALE	.0150	SCALE	

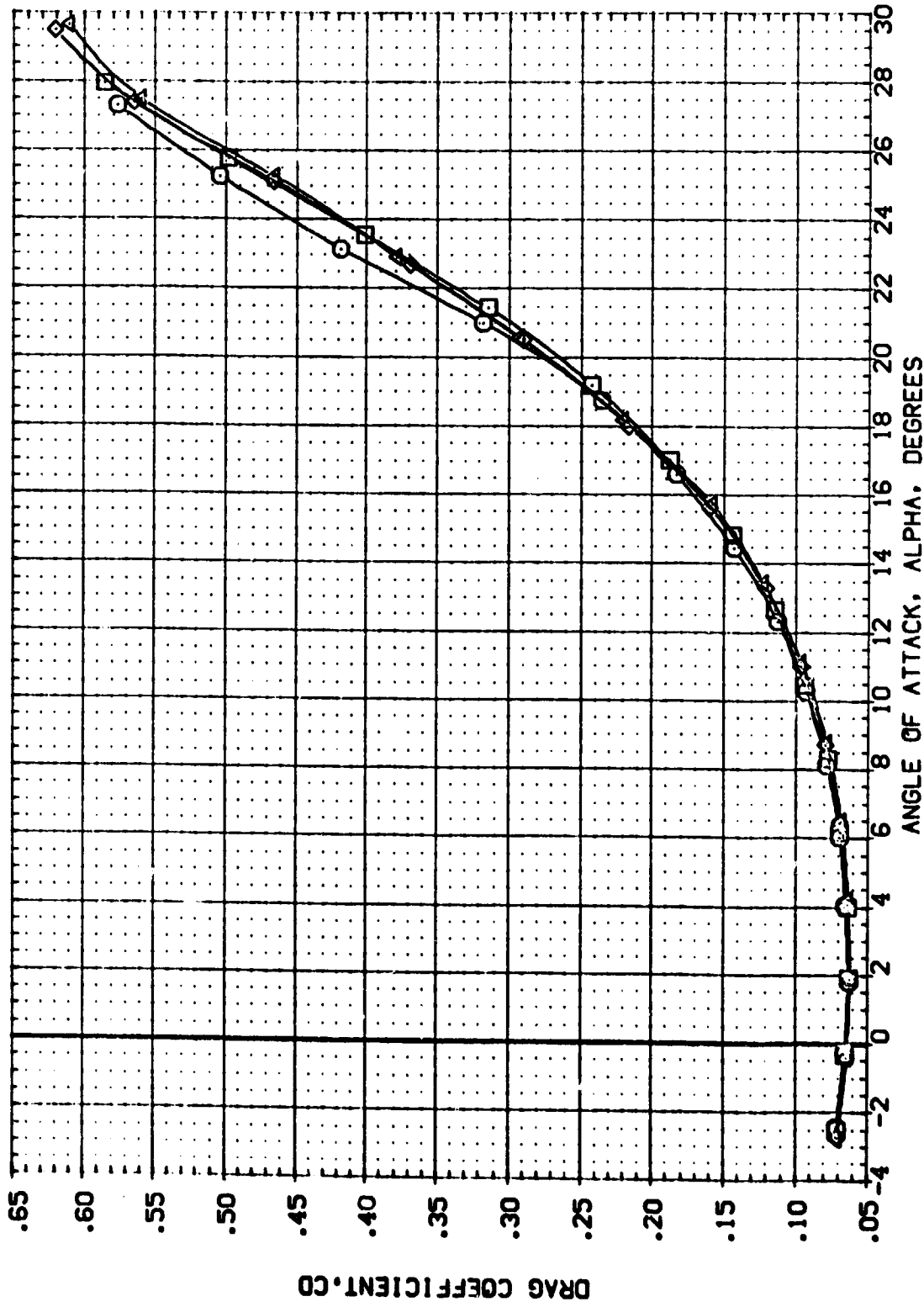


FIGURE 13 1398 ORBITER (MOD NOSE) TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS



0A17.LTPT138.ORB 3.(B21C7F5M4)(W107E23)(V7R5) (APP009)

SYMBOL		PARAMETRIC VALUES		REFERENCE INFORMATION	
○ □ ◇ △	RVL	BETA	MALH	SREF	50. IN
	2.330	.000	.251	LREF	INCHES
	4.593	.000	.000	BREF	INCHES
	9.933	.000	-14.250	YARP	INCHES
	11.630	24.920		ZARP	INCHES
				SCALE	SCALE

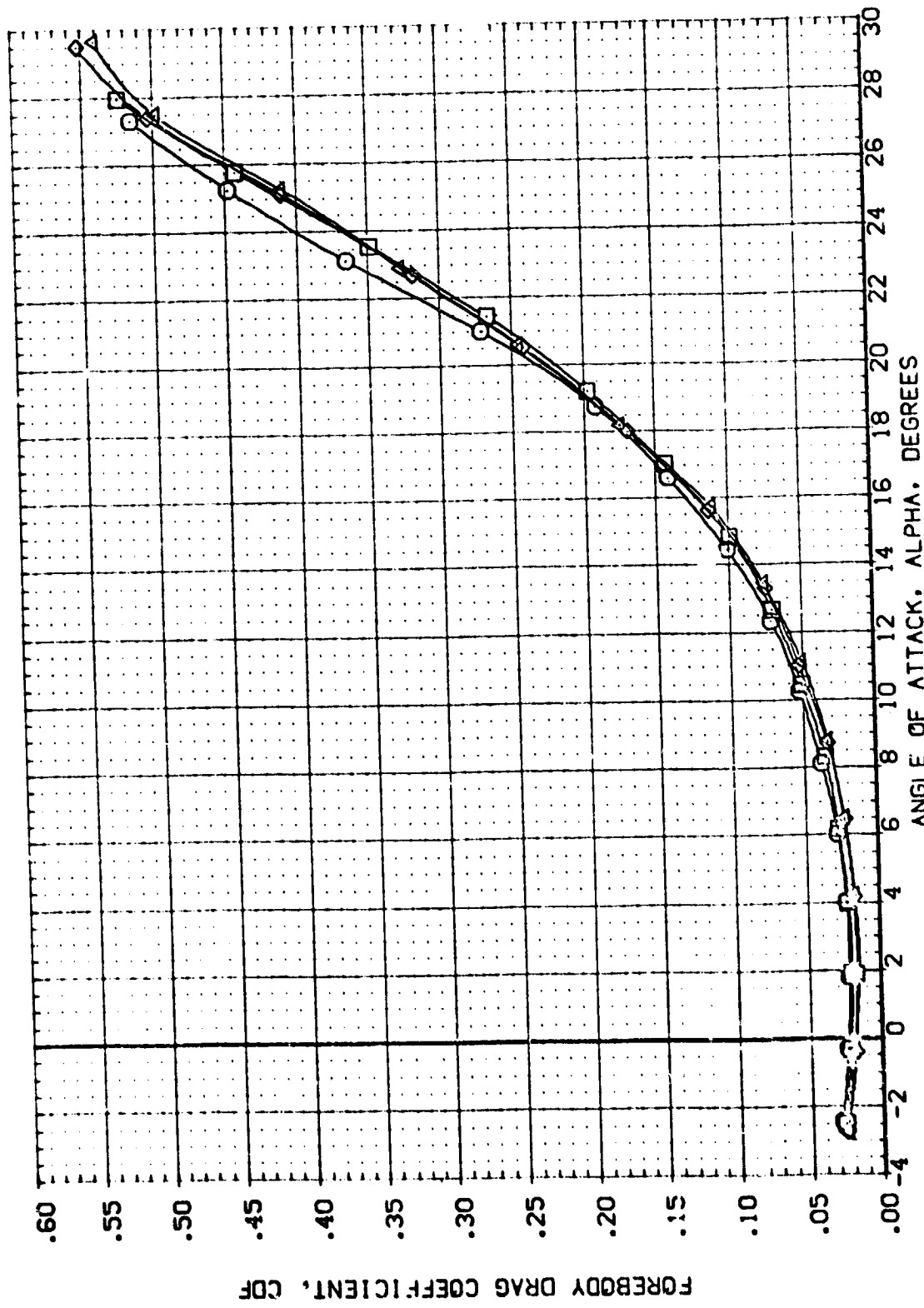


FIGURE 13 1398 ORBITER (MOD NOSE) TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.ORB 3.(B21C75M4)(W107E23)(V7R5) (APP009)

SYMBOL	RV/L	PARAMETRIC VALUES				REFERENCE INFORMATION			
		BETA	.COO	MACH	.751	SRFF	87.1560	SO. IN.	INCHES
○	2.330	ELEVTR	.000	AILRON	.000	LRFF	19.3545	INCHES	INCHES
□	4.593	RUDER	.000	BOFLAP	-14.250	BRFF	14.0502	INCHES	INCHES
◇	9.933	SPDRK	24.920			XMRP	12.5770	INCHES	INCHES
△	11.630					YMRP	6.0000	INCHES	INCHES
						ZMRP	6.0000	INCHES	INCHES
						SCALE	.0150	SCALE	SCALE

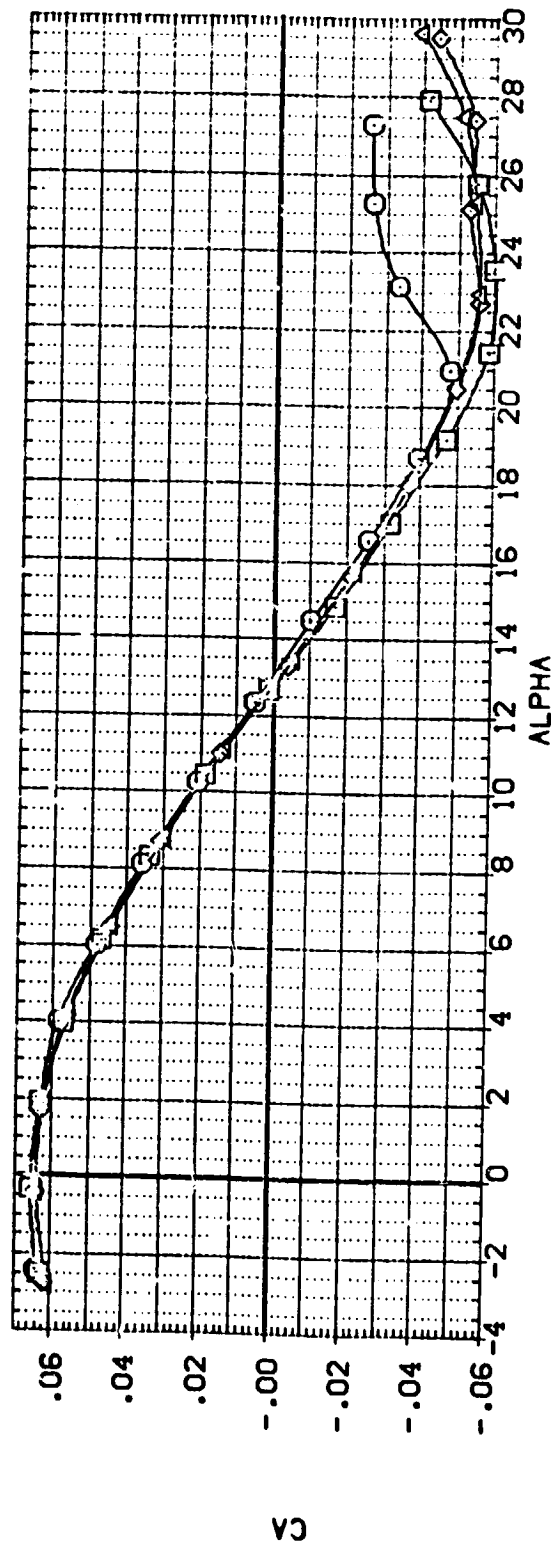
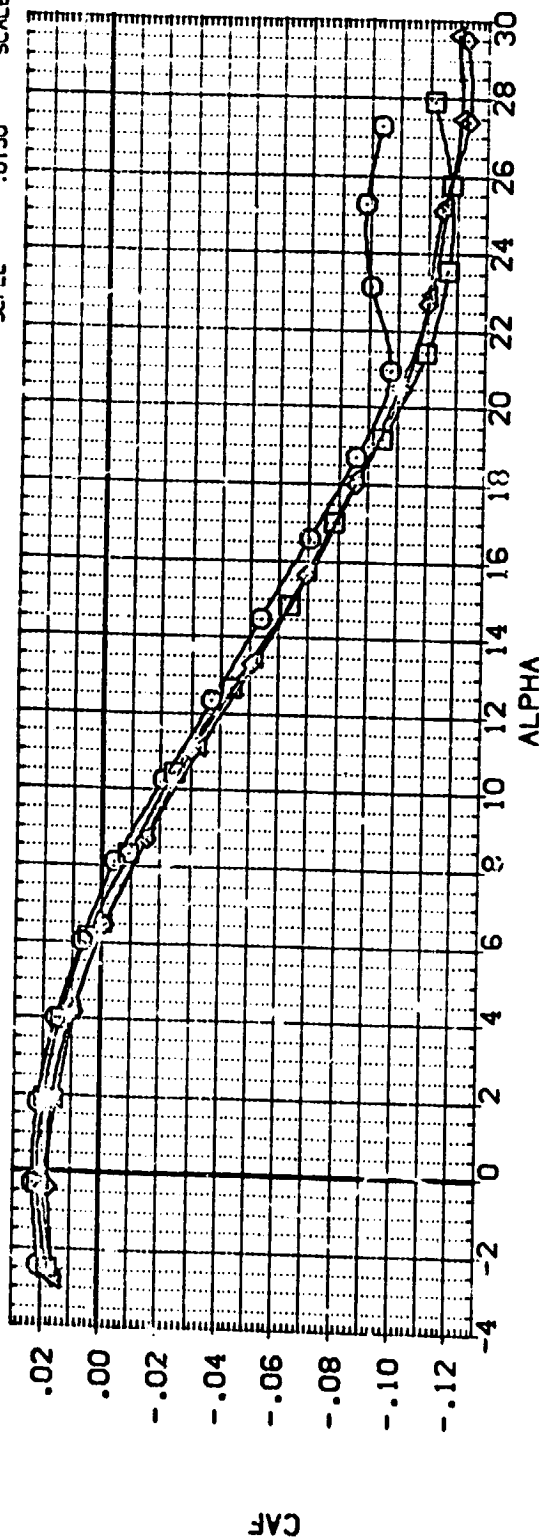


FIGURE 13 139B ORBITER (MOD NOSE) TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.ORB 3.(B21C7F5M4)(W107E23)(V7R5) (APP009)

PARAMETRIC VALUES		REFERENCE INFORMATION	
SYMBOL	VALUE	SREF	87.1560
BETA	.000	LREF	19.3545
ELEVTR	.000	BREF	14.0502
FLDER	.000	XMRP	12.5770
SPLBRK	24.920	YMRP	.0000
		ZMRP	.0000
		SCALE	.0150
		SCALE	

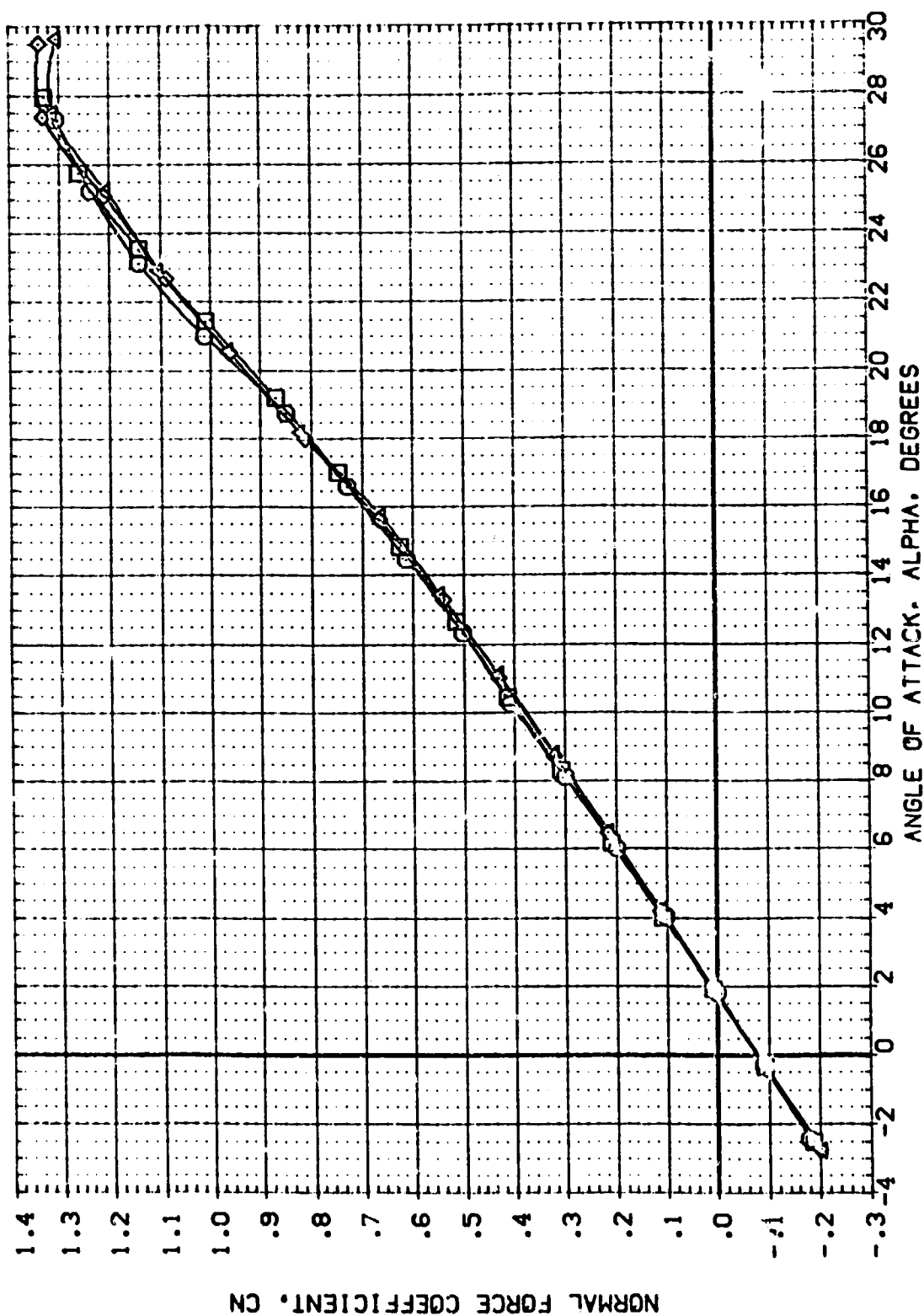


FIGURE 13 1398 ORBITER (MOD NOSE) TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.ORB 3.(B21C7F5M4)(W107E23)(V7R5) (APP009)

SYMBOL	RV/L	BETA	ELEVTR	RJDDER	SPOBRK	PARAMETRIC VALUES	REFERENCE INFORMATION
○	2.330	.000	.000	.000	.251	MACH	SREF 97.1560
□	4.593	.000	.000	.000	.000	AILRON	LREF 19.3543
◇	9.533	.000	.000	.000	-14.250	BOFLAP	BREF 14.0502
△	11.630	.000	.000	.000			XREF 12.7770
							YREF .0000
							ZREF .0000
							SCALE .0150

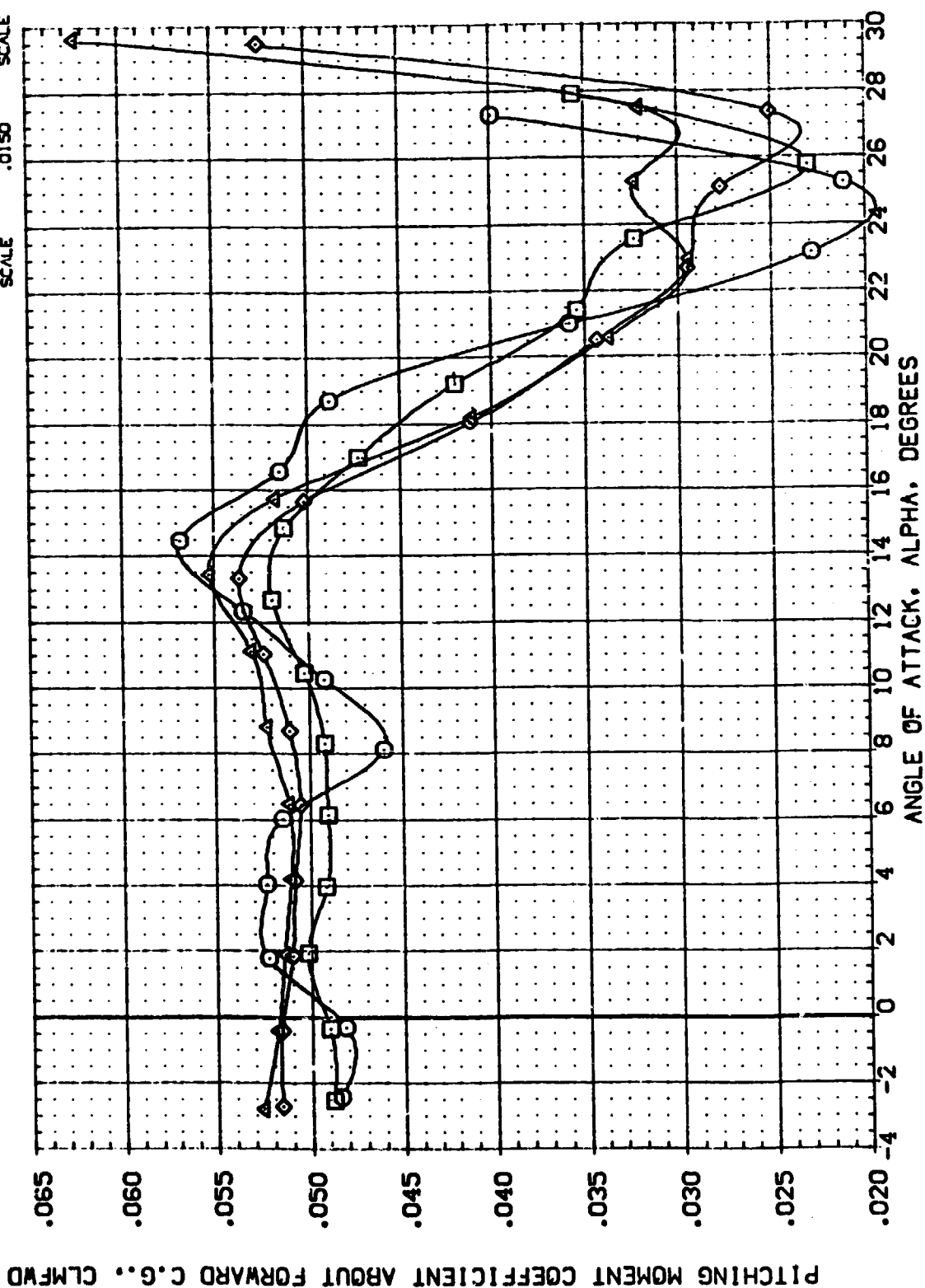


FIGURE 13 1398 ORBITER (MOD NOSE) TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS



0A17.LTPT138.ORB 3.(B21C7F5M4)(W107E23)(V7R5) (APP009)

SYMBOL	RV/L	PARAMETRIC VALUES				REFERENCE INFORMATION			
		BETA	MACH	AIRLON	BDFLAP	SREF	SO, IN.	LREF	INCHES
○	2.330	.000	.251	.000	.000	19.3545	19.3545	14.5502	INCHES
□	4.593	.000	.000	.000	-14.250	12.5770	12.5770	6.0000	INCHES
◇	9.933	.000	.000	.000	.000	6.0000	6.0000	6.0000	INCHES
△	11.630	SPOBRK	24.920			SCALE	.0150		SCALE

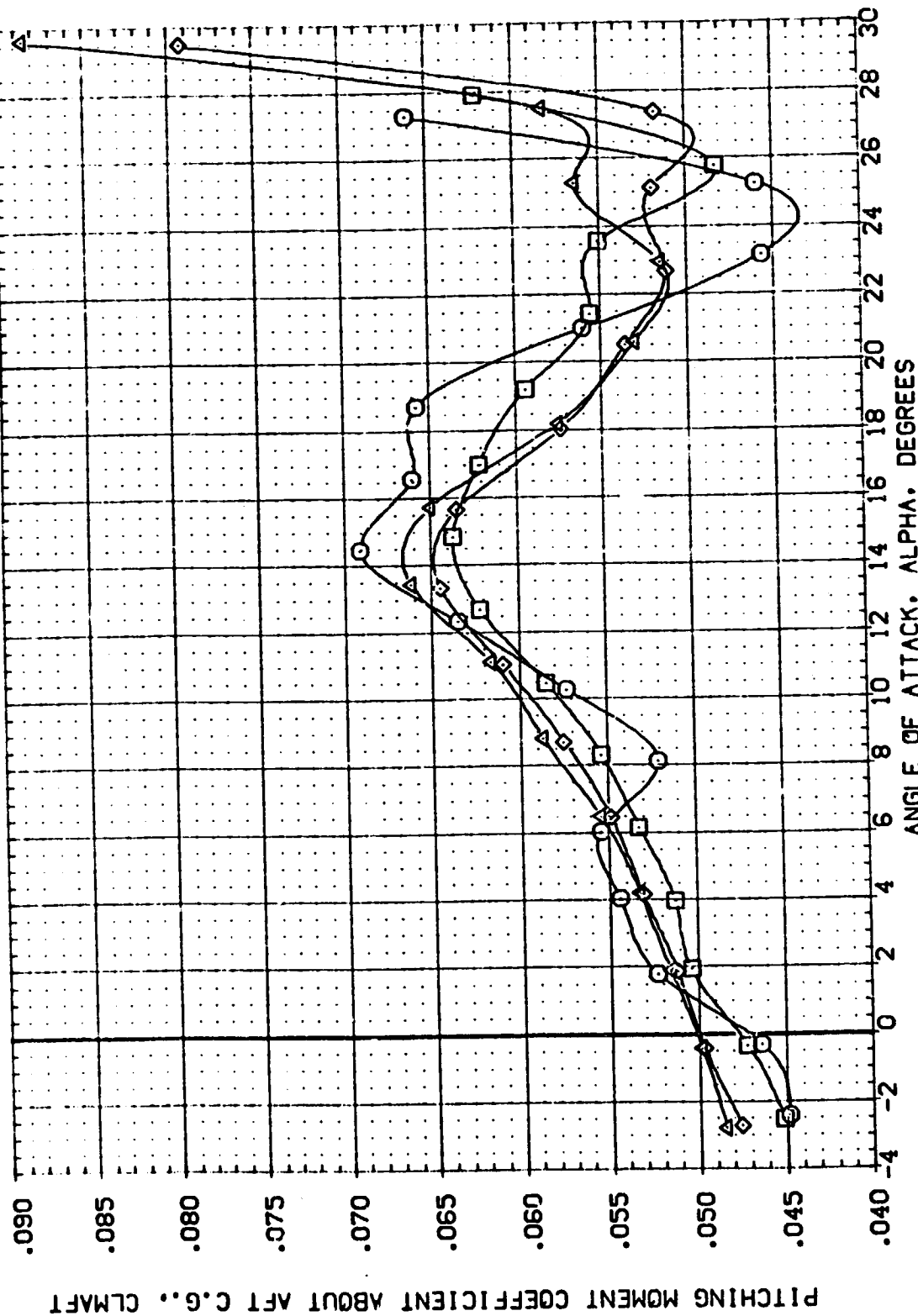


FIGURE 13 1398 ORBITER (MOD NOSE) TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.ORB 3.(B21C7F5M4)(W107E23)(V7R5) (APP009)

SYMBOL

RVAL

BETA
ELEVTR
RUDDER
SPDRK

PARAMETRIC VALUES

.000 MACH
.000 AILRON
.000 BOFLAP
24.920

REFERENCE INFORMATION
SREF 87.1560 SQ. IN.
LREF 19.3545 INCHES
BREF 14.0502 INCHES
XMRP 12.5770 INCHES
YMRP .0000 INCHES
ZMRP 6.0000 INCHES
SCALE .0150

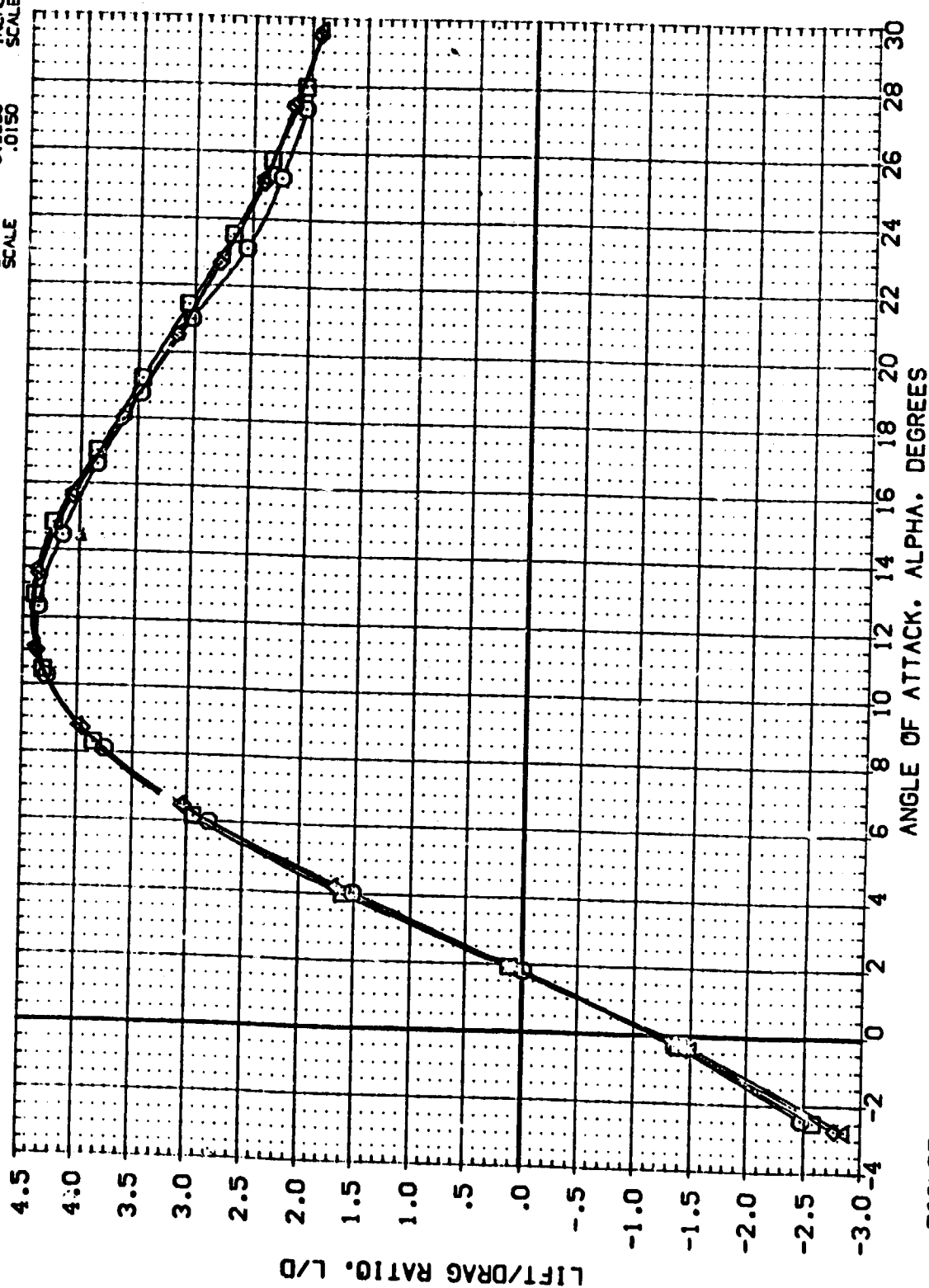


FIGURE 13 1398 ORBITER (MOD NOSE) TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

CA17. LPT138.ORB 3 (B21C7F5M4)(W107E23)(V7R5) (APP009)

SYMBOL
 ○
 □
 ◇
 △

RV/L
 2.330
 4.593
 9.933
 11.630

BETA
 .000
 .000
 .000
 .000

ELEVTR
 .000
 .000
 .000
 .000

PARAMETRIC VALUES
 MACH .251
 ALRGN .000
 BOFLAP -14.250
 SPDRK 24.920

REFERENCE INFORMATION
 SREF 87.1560 SQ. IN.
 LREF 19.3545 INCHES
 BREF 14.0502 INCHES
 XPRP 12.5770 INCHES
 YPRP 6.0000 INCHES
 ZPRP 6.0000 INCHES
 SCALE .0150

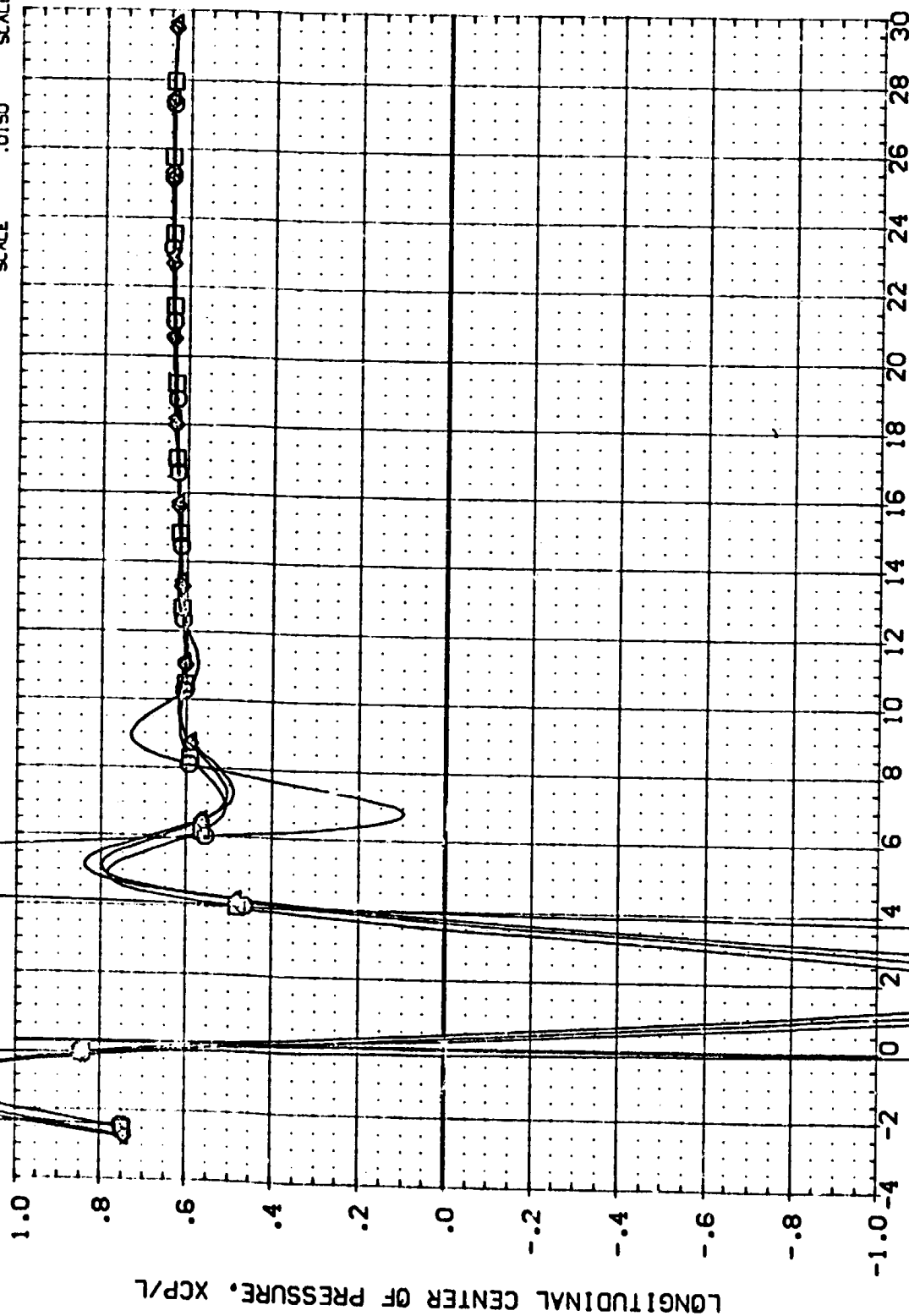


FIGURE 13 139B ORBITER (MOD NOSE) TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.ORB 3.(B21C7F5M4)(W107E23)(V7R5) (APP009)

SYMBOL	RV/L	PARAMETRIC VALUES				REFERENCE INFORMATION			
		BETA	ELEVTR	FLDGR	SPDRK	SREF	LREF	BREF	XMRP
○	2.330	.000	.000	.000	.251	87.1560	19.3545	14.0502	12.5770
□	4.593	.000	.000	.000	.000	19.3545	14.0502	12.5770	12.5770
◇	9.933	.000	.000	.000	-14.250	12.5770	12.5770	12.5770	12.5770
△	11.630	24.920				6.0000	6.0000	6.0000	6.0000
						SCALE	SCALE	SCALE	SCALE

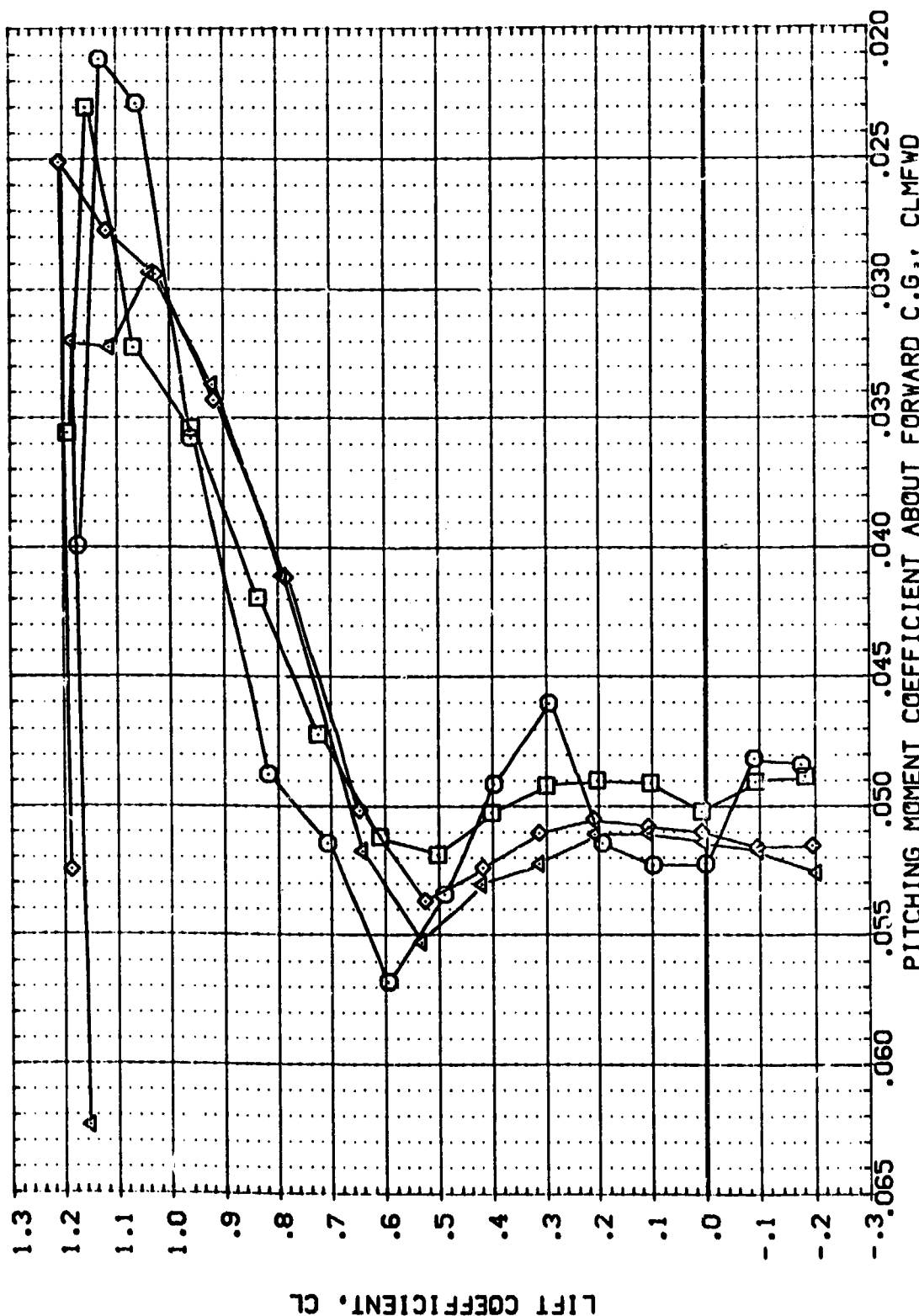


FIGURE 13 139B ORBITER (MOD NOSE) TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS



0A17.LTPT138.ORB 3.(B21C7F5M4)(W107E23)(V7R5) (APP009)

SYMBOL	RV/L	PARAMETRIC VALUES				REFERENCE INFORMATION			
		BETA	ELEVTR	RJODER	SPD38K	SREF	LREF	BREF	XTRP
○	2.330	.000	.000	.000	24.920	87.1560	19.3545	14.0502	12.5770
□	4.593	.000	.000	.000	-14.250	19.3545	14.0502	12.5770	12.5770
◇	9.933	.000	.000	.000	-14.250	12.5770	12.5770	12.5770	12.5770
△	11.630	.000	.000	.000	-14.250	6.0000	6.0000	6.0000	6.0000
						SCALE	SCALE	SCALE	SCALE

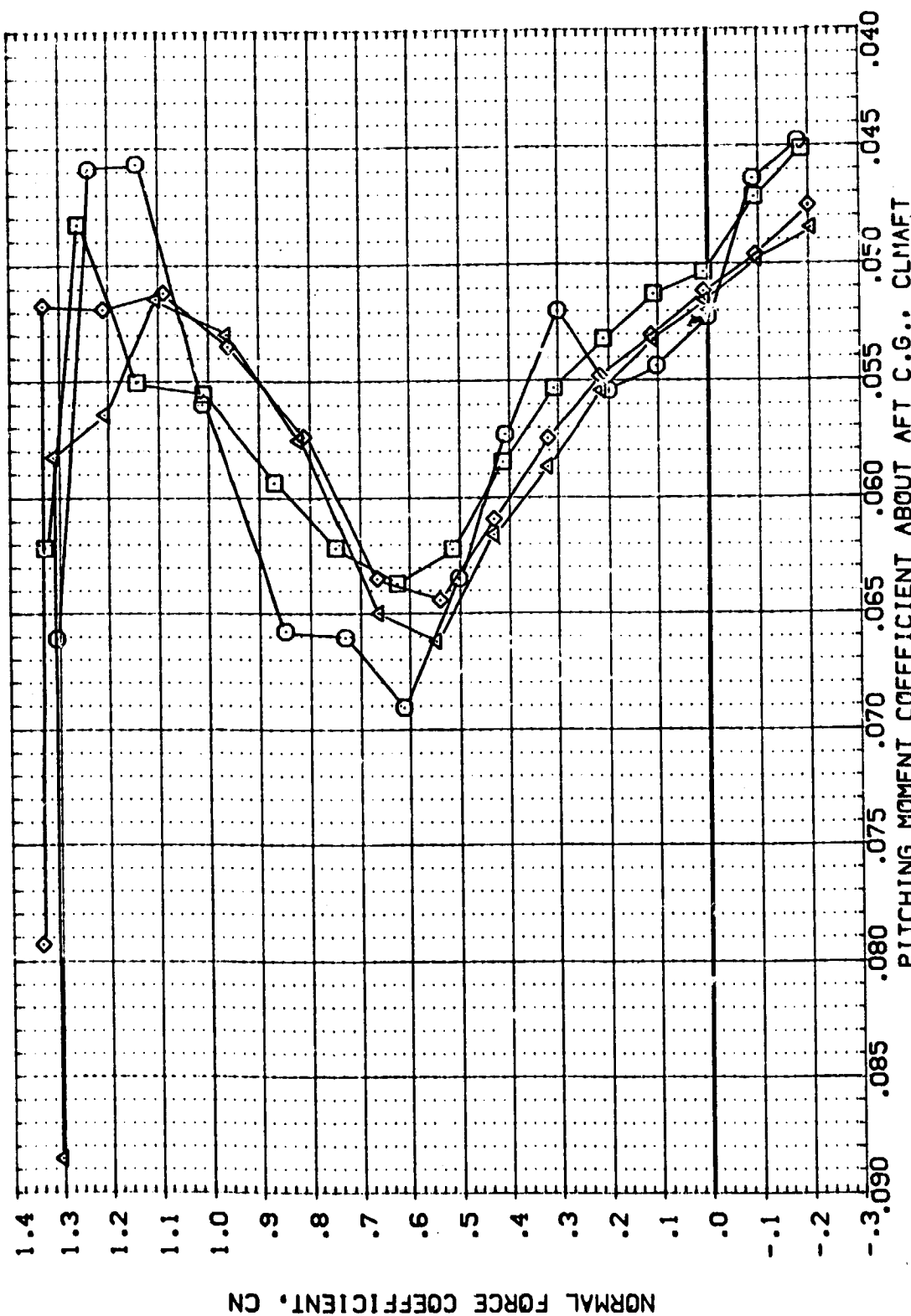


FIGURE 13 139B ORBITER (MOD NOSE) TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

SYMBOL		PARAMETRIC VALUES				REFERENCE INFORMATION	
RV/L		BETA	.000	MACH	.251	SREF	87.1560
2.320		ELEVTR	.000	AILRON	.000	LREF	19.3545
4.593		RLOOR	.000	BDFLAP	-14.250	BREF	14.0502
9.933		SPOBRK	24.920			XMRP	12.5770
11.630						YMRP	6.0000
						ZMRP	6.0000
						SCALE	.0150
							INCHES
							INCHES
							INCHES
							SCALE

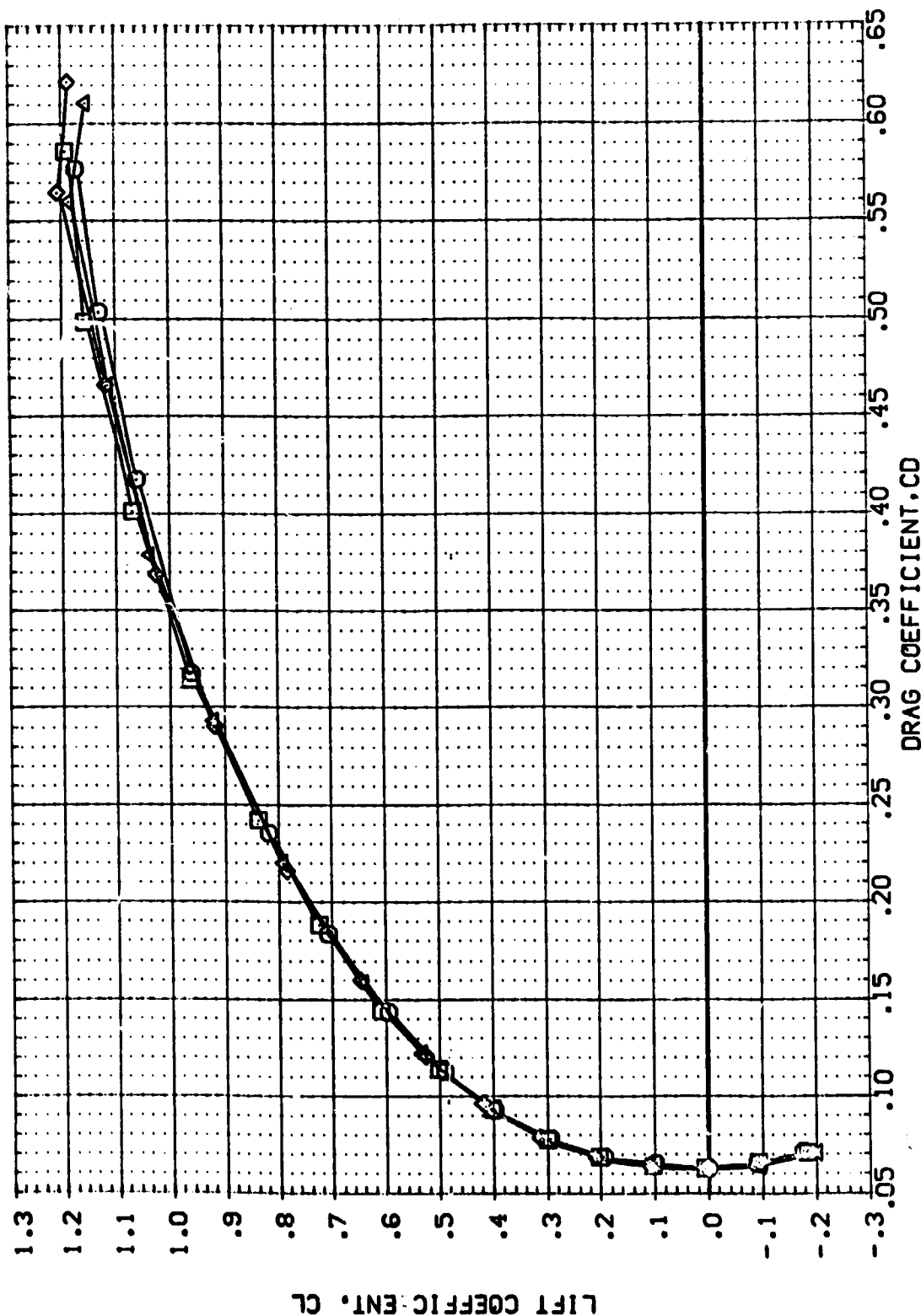


FIGURE 13 139B ORBITER (MOD NOSE) TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.ORB 3.(B21C7F5M4)(W107E23)(V7R5) (RPP009)

SYMBOL	RN/L	BETA	PARAMETRIC VALUES	REFERENCE INFORMATION
○	2.330	.000	MACH	SREF 87.1560
□	4.593	.000	AILRON	SO, IN. 19.3545
◇	9.933	.000	BOFLAP	INCHES 14.0502
△	11.630	24.920		INCHES 12.5770
				INCHES 6.0000
				INCHES 6.0000
				SCALE .0150

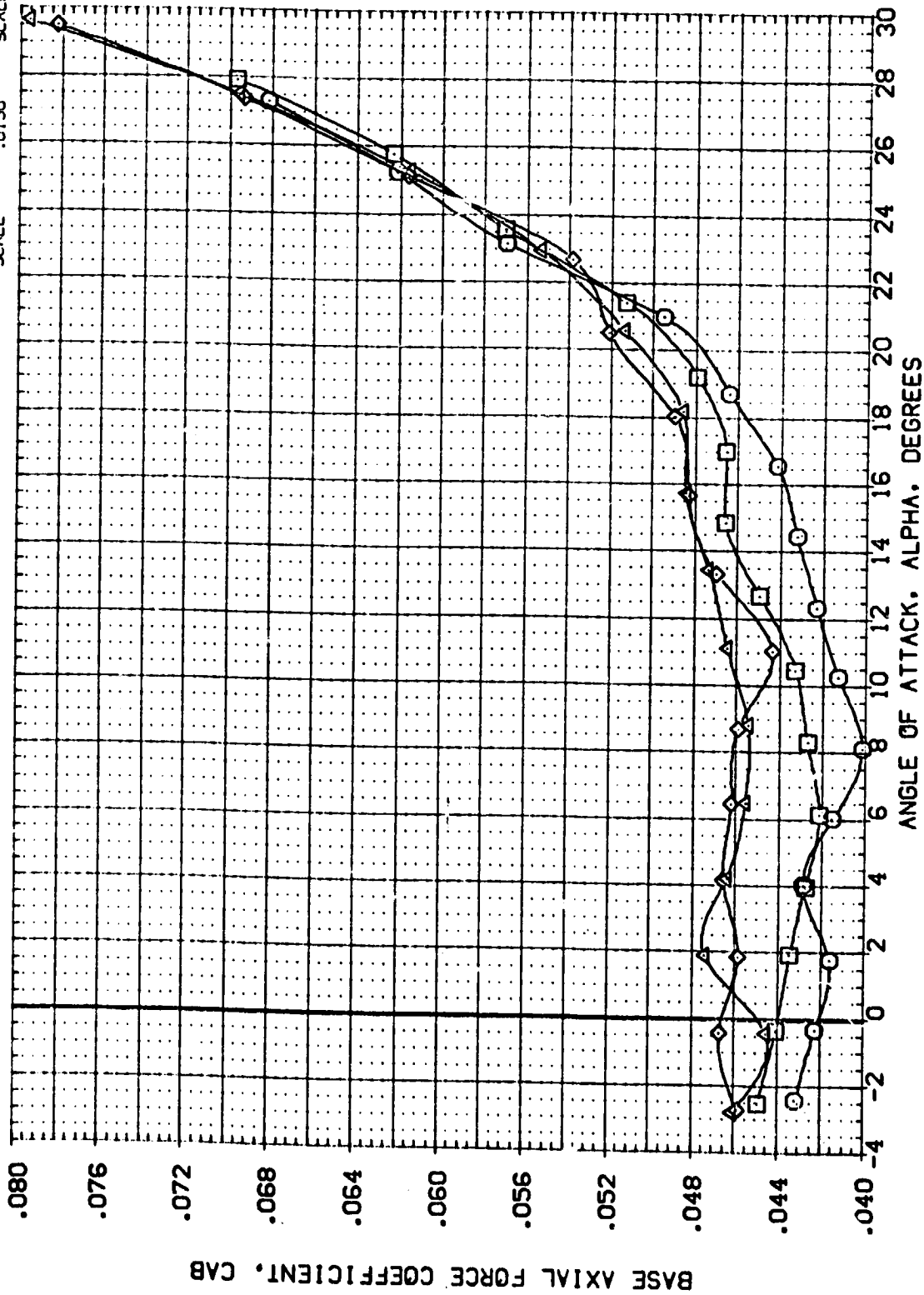


FIGURE 13 1398 ORBITER (MOD NOSE) TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

SYMBOL	RWL	PARAMETRIC VALUES				REFERENCE INFORMATION			
		BETA	MACH	AILRON	BOFLAP	SKREF	SO.IN.	INCHES	INCHES
○	1.365	.000	.000	.000	.000	LREF	19.3545	INCHES	INCHES
□	7.560	.000	.000	.000	.000	BREF	14.0502	INCHES	INCHES
△	9.822	.000	.000	.000	.000	XMRP	12.5770	INCHES	INCHES
◇	11.510	.000	.000	.000	.000	YMRP	6.0000	INCHES	INCHES
						ZMRP	.0150	INCHES	SCALE

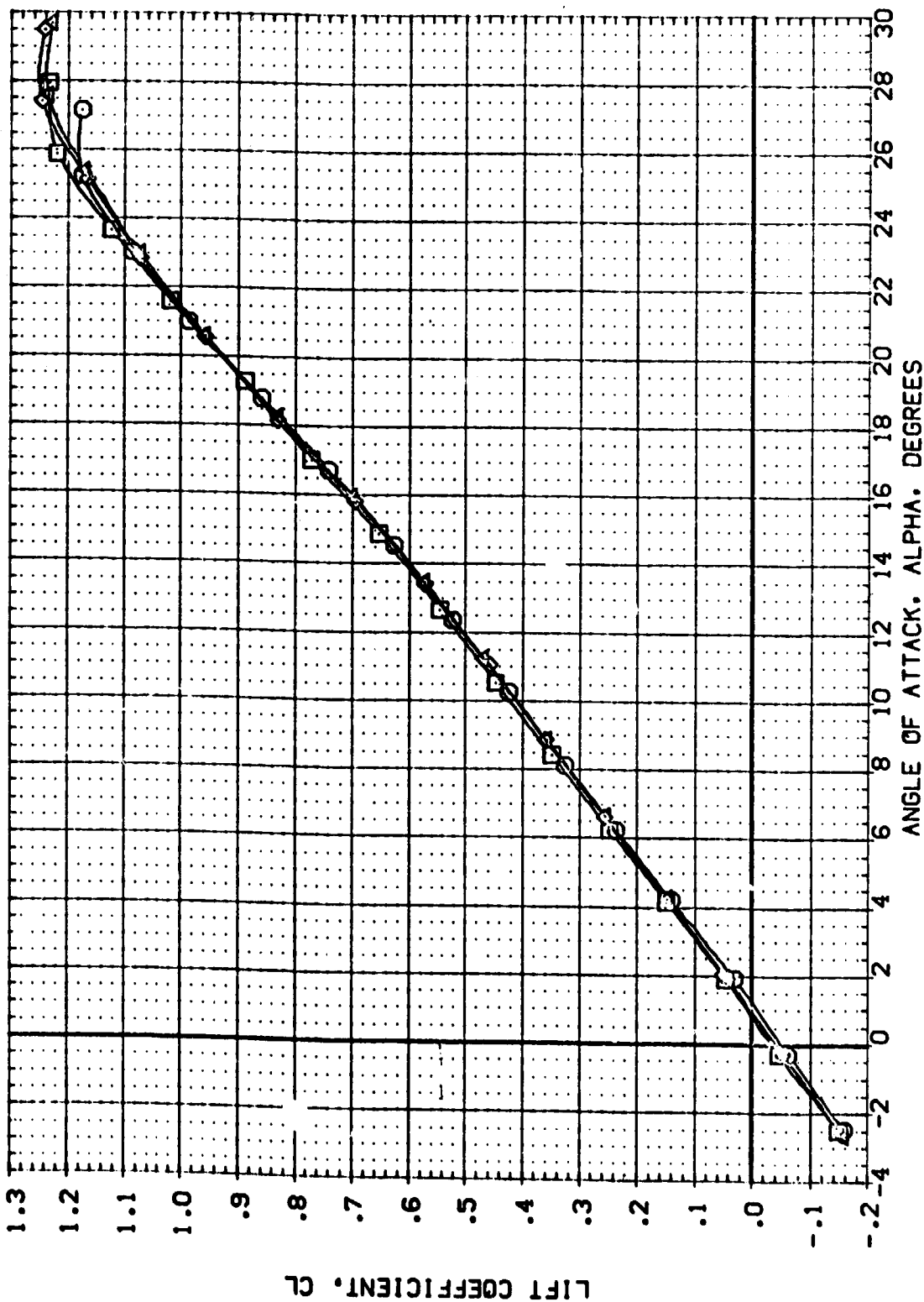


FIGURE 13 139B ORBITER (MOD NOSE) TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LIPT138.ORB 3.(B21C7F5M4)(W107E23)(V7R5) (APP011)

SYMBOL	RV/L	BETA	PARAMETRIC VALUES	REFERENCE INFORMATION
□	2.365	ELEVTR	.000 MACH	SREF 87.1550
◇	4.560	R.ODER	.000 AILRON	LREF 19.3545
△	9.802	SPDRK	.000 BOFLAP	BREF 14.0502
	11.510		.000	XREF 12.5770
			.000	YREF 6.0000
			.000	ZREF 6.0000
			.000	SCALE .0150

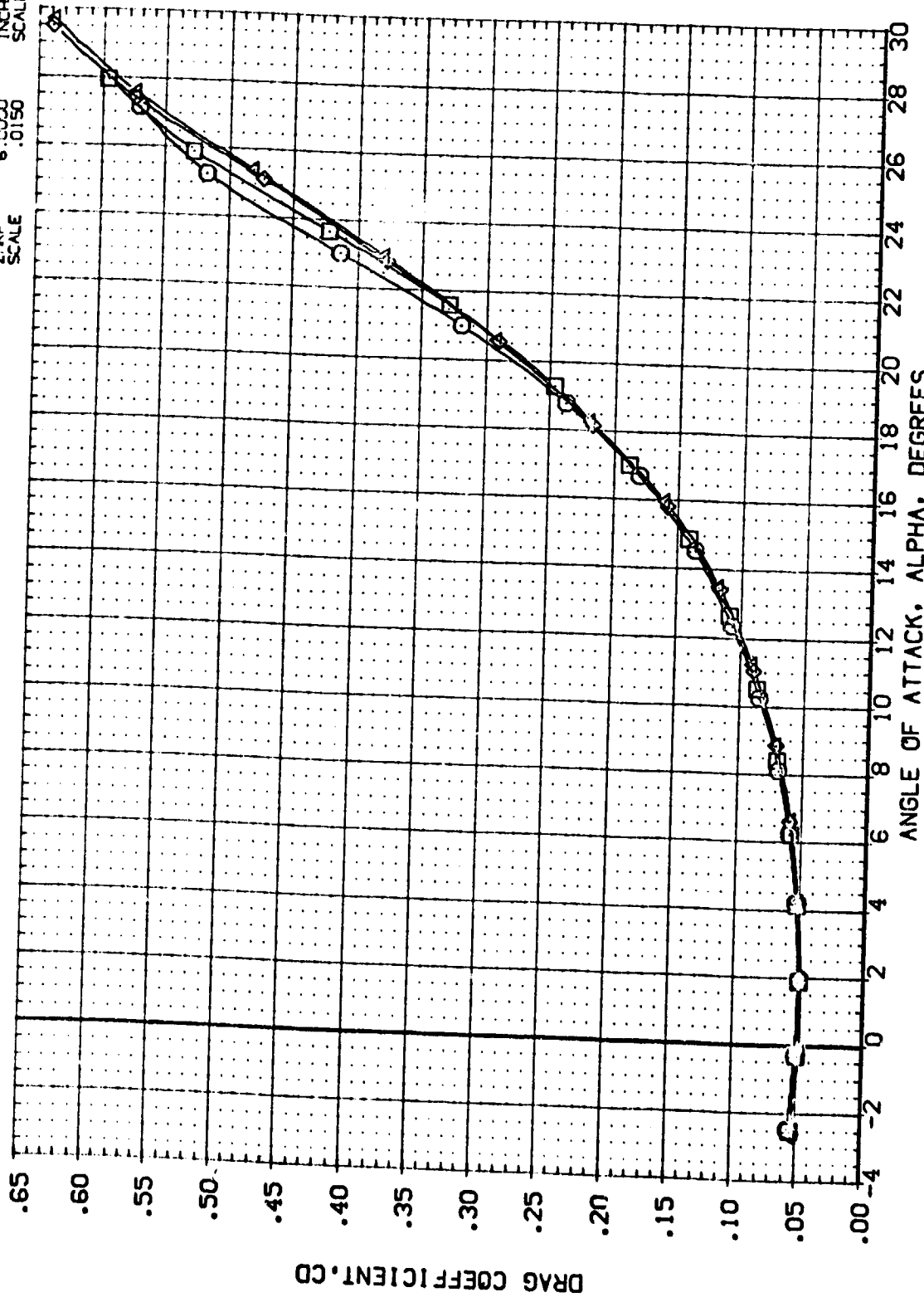


FIGURE 13 139B ORBITER (MOD NOSE) TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.ORB 3.(B21C7F5M4)(W107E23)(V7R5) (APP011)

SYMBOL	RV/L	PARAMETRIC VALUES				REFERENCE INFORMATION			
		BETA	ELEVTR	AILRON	BOFLAP	SREF	LREF	BREF	SCALE
○	2.355	.000	.000	.000	.000	87.1560	19.3345	14.0502	50 IN.
□	4.560	.000	.000	.000	.000	19.3345	14.0502	12.5770	INCHES
△	9.802	.000	.000	.000	.000	12.5770	12.5770	6.0000	INCHES
	11.510	.000	.000	.000	.000	6.0000	6.0000	.0150	INCHES
									SCALE

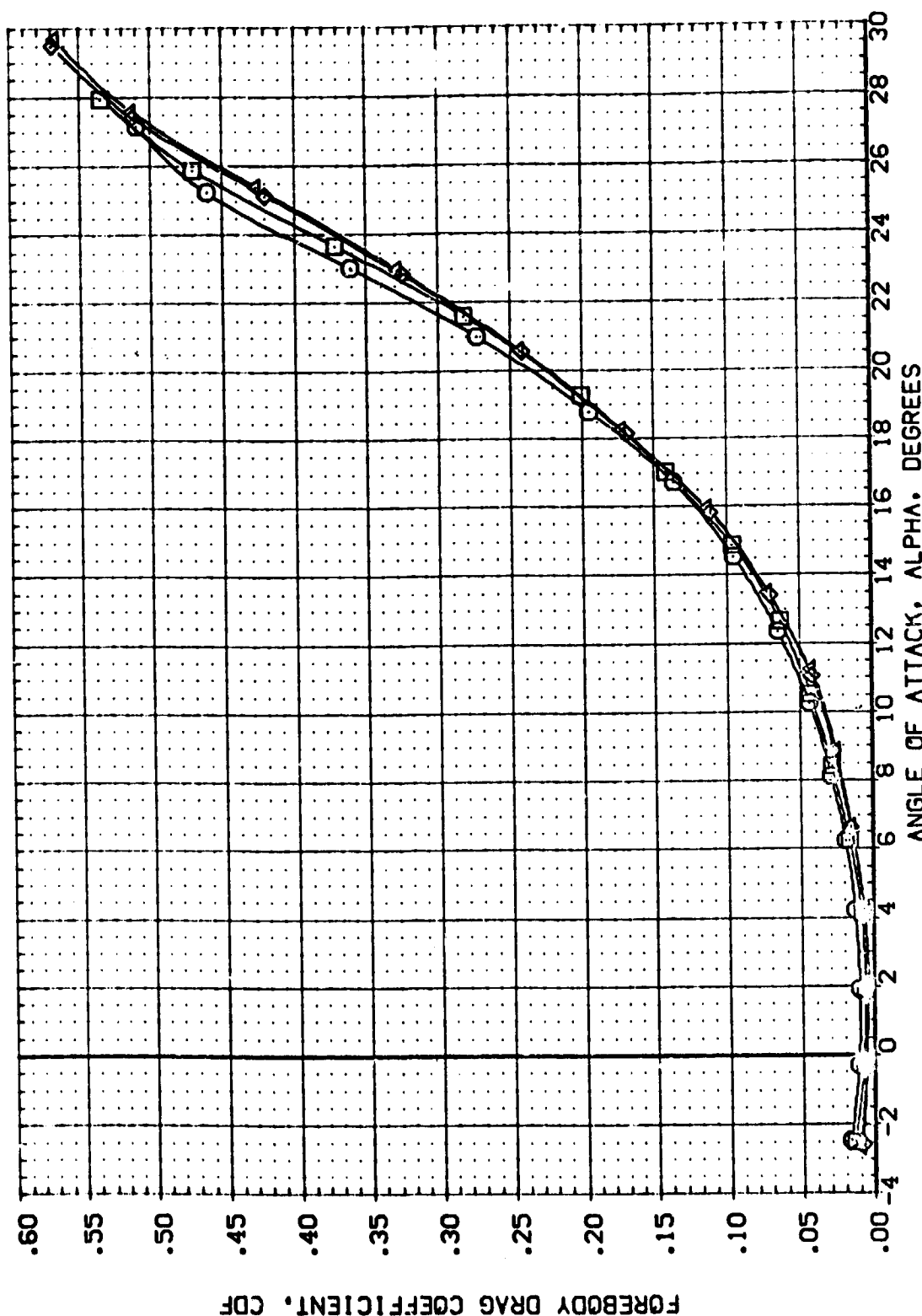


FIGURE 13 139B ORBITER (MOD NOSE) TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS



0A17.LTPT138.ORB 3.(B21C7F5M4)(W107E23)(V7R5) (APP011)

PARAMETRIC VALUES				REFERENCE INFORMATION			
RV/L	BETA	.000	MACH	SREF	87.1560	SG, IN.	INCHES
2.365	ELEVTR	.000	AILRON	LREF	19.3545	INCHES	INCHES
4.560	RUDER	.000	BOFLAP	BREF	14.0502	INCHES	INCHES
9.822	SPOBRK	.000		XREF	12.5770	INCHES	INCHES
11.510				YREF	.0000	INCHES	INCHES
				ZREF	6.0000	INCHES	INCHES
				SCALE	.0150	SCALE	SCALE

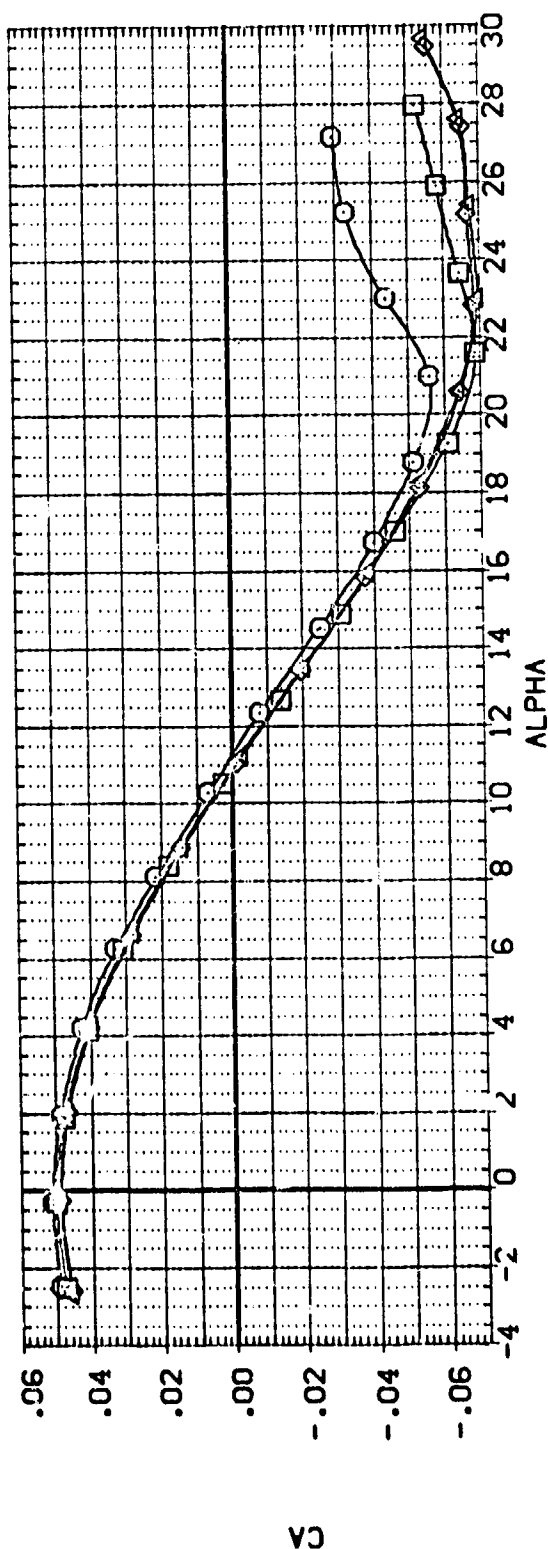
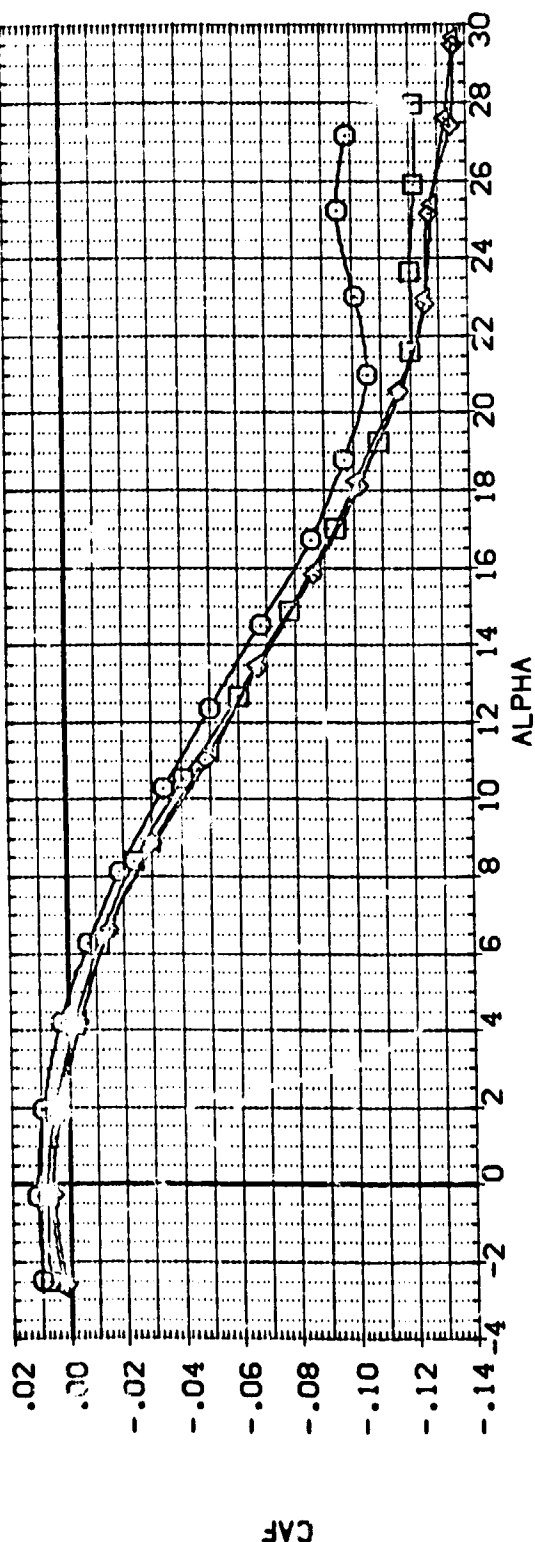


FIGURE 13 139B ORBITER (MOD NOSE) TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

PARAMETRIC VALUES				REFERENCE INFORMATION			
SYMBOL	RM/L	BETA	MACH	SREF	SQ. IN.		
○	2.365	ELEVTR	.000	LREF	19.3245	INCHES	
□	4.560	RUDER	.000	XMRP	14.0502	INCHES	
△	9.802	SPEEDRK	.000	YMRP	12.5770	INCHES	
	11.510			ZMRP	6.0000	INCHES	
				SCALE	.0150	SCALE	

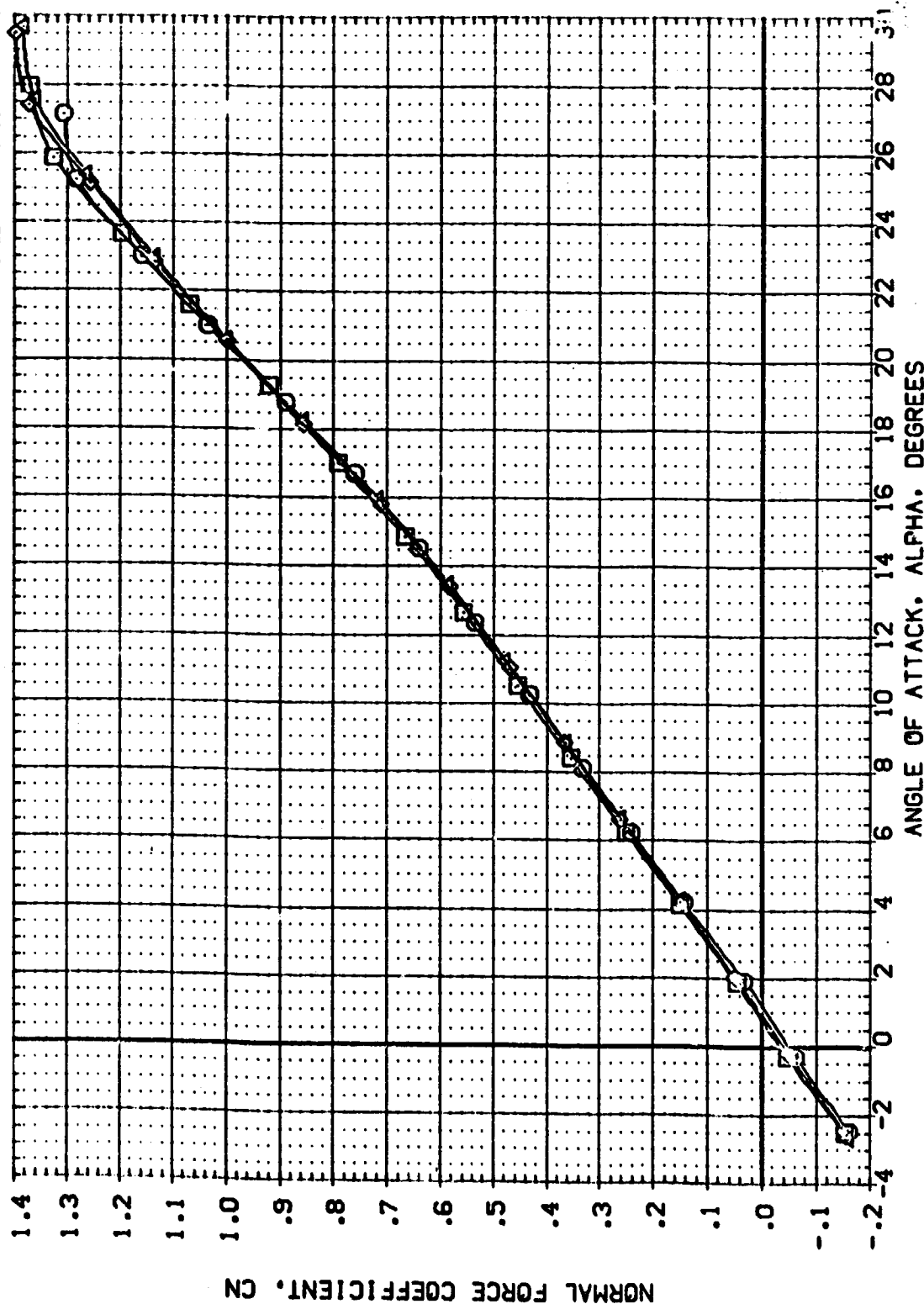


FIGURE 13 1398 ORBITER (MOD NOSE) TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.ORB 3.(B21C7F5M4)(W107E23)(V7R5) (APP011)

SYMBOL	R _{N/L}	BETA	ELEVTR	RUDDER	SPOBRK	PARAMETRIC VALUES	MACH	AILRON	BOFLAP	REFERENCE INFORMATION	SO. IN.
○	2.365	.000	.000	.000	.000	.247	.000	.000	.000	SREF	87.1560
□	4.560	.000	.000	.000	.000	.000	.000	.000	.000	LREF	19.3545
◇	9.802	.000	.000	.000	.000	.000	.000	.000	.000	BREF	14.0502
△	11.510	.000	.000	.000	.000	.000	.000	.000	.000	XTRP	12.5770
										YTRP	.0000
										ZTRP	6.0000
										SCALE	.0150

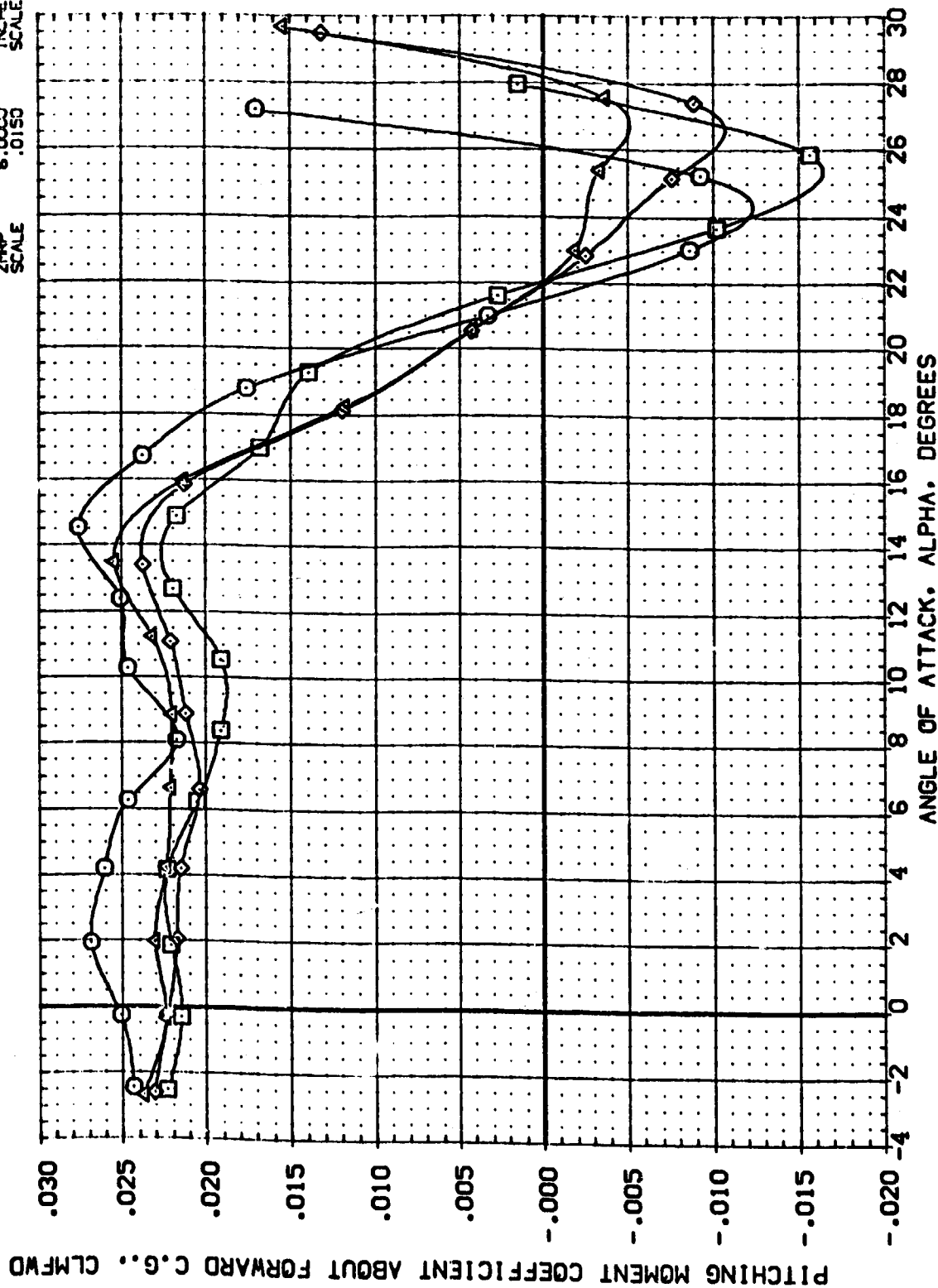


FIGURE 13 139B ORBITER (MOD NOSE) TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.ORB 3.(B21C7F5M4)(W107E23)(V7R5) (APP011)

SYMBOL	RVNL	PARAMETRIC VALUES				REFERENCE INFORMATION			
		BETA	ELEVTR	MACH		SREF	SO.IN.	INCHES	
○	2.365	.000	.000	.247		19.3545	19.3545	INCHES	
□	4.560	.000	.000	.000		14.0502	14.0502	INCHES	
△	9.832	.000	.000	.000		12.5770	12.5770	INCHES	
◇	11.510	.000	.000	.000		6.0000	6.0000	INCHES	
						2.0000	2.0000	INCHES	
						SCALE	SCALE	SCALE	

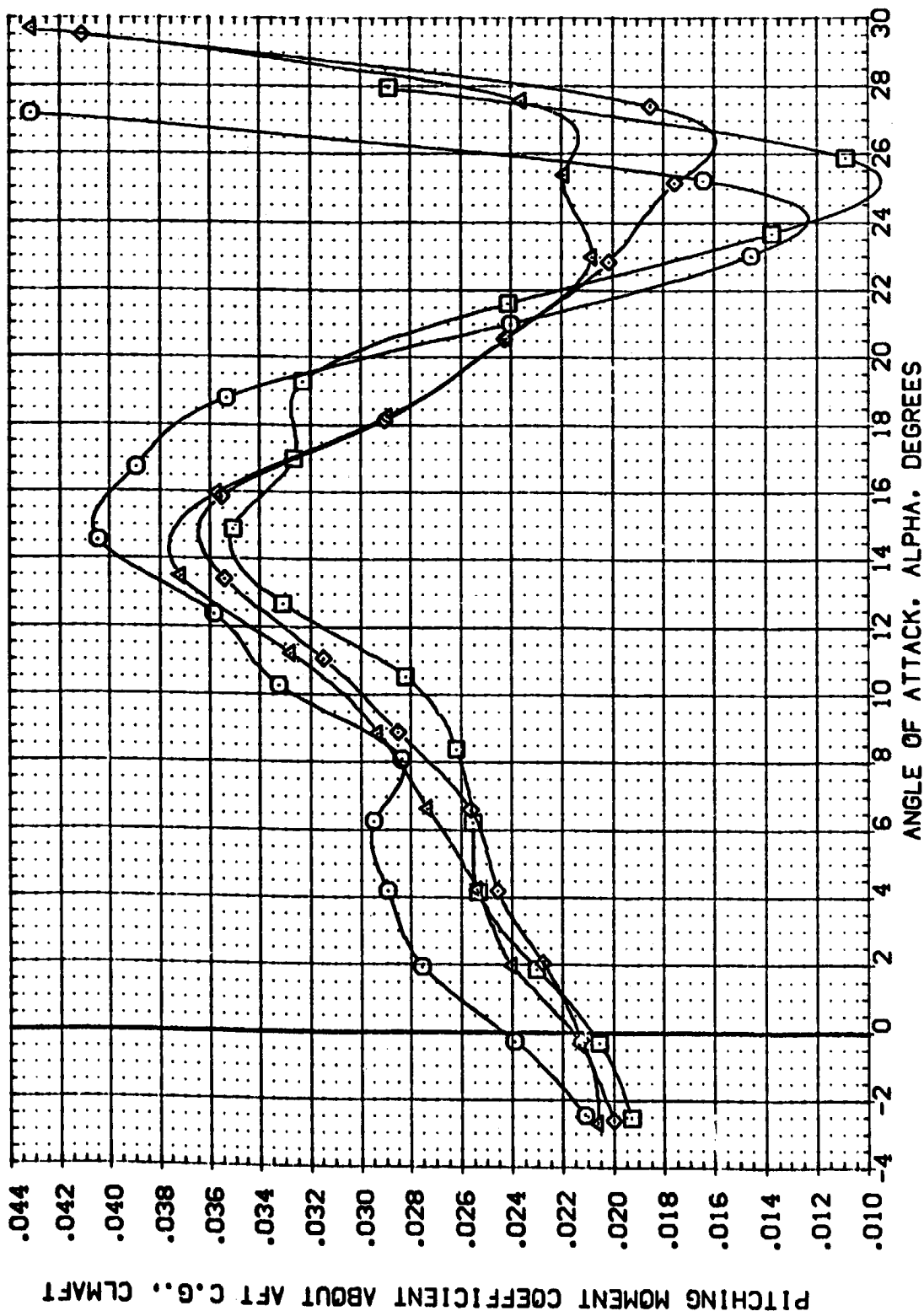


FIGURE 13 1398 ORBITER (MOD NOSE) TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS



0A17.LTPT138.ORB 3.(B21C7F5M4)(W107E23)(V7R5) (APP011)

SYMBOL		PARAMETRIC VALUES		REFERENCE INFORMATION	
○	RVAL	BETA	MACH	SREF	50. IN.
		ELEVTR	AILLRN	LREF	INCHES
		RUDER	BOFLAP	BREF	INCHES
		SPDRK		XPRP	INCHES
◇				YPRP	INCHES
△				ZPRP	INCHES
				SCALE	SCALE

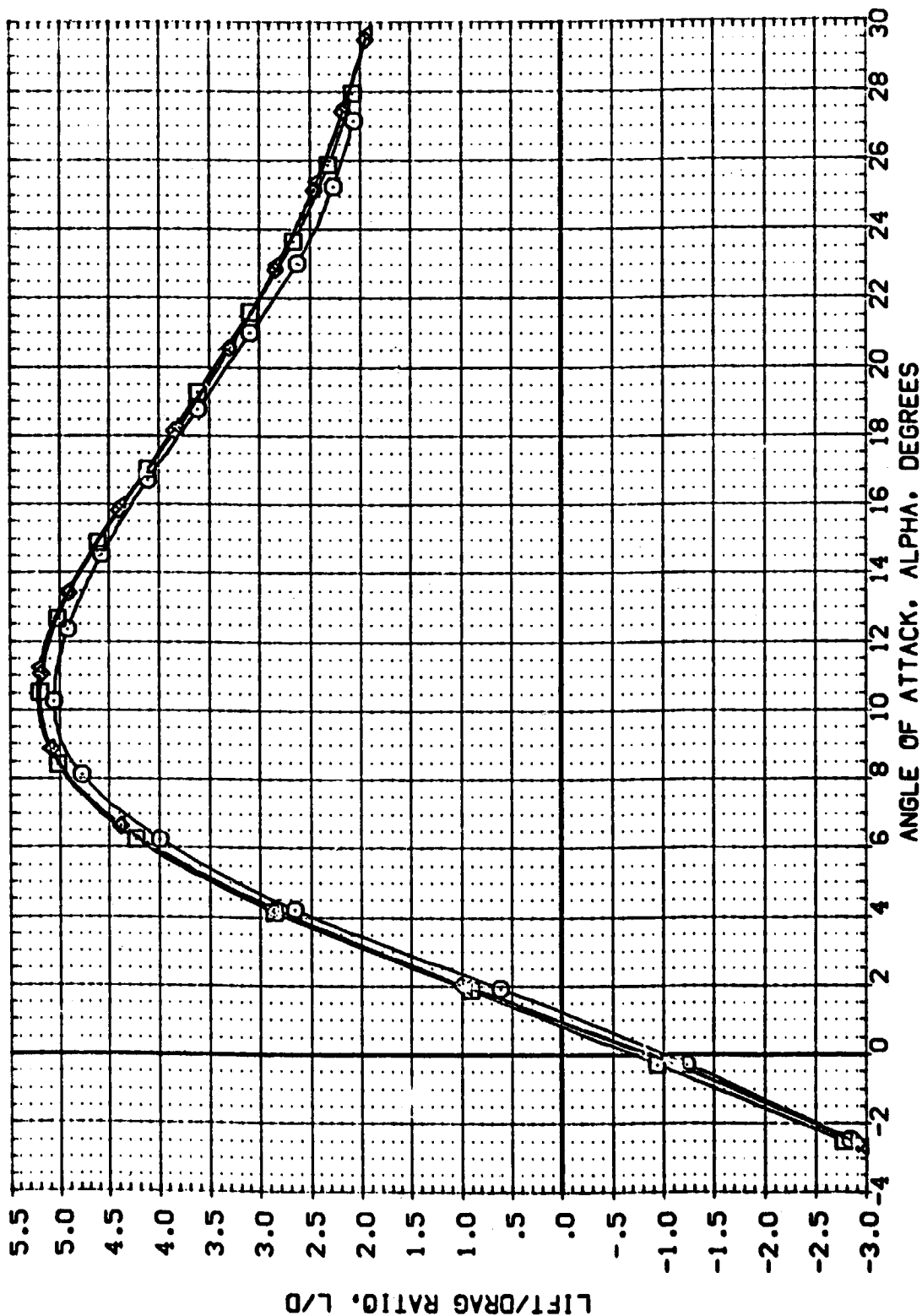


FIGURE 13 139B ORBITER (MOD NOSE) TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.ORB 3.(B21C7F5M4)(W107E23)(V7R5) (APP011)

SYMBOL	RV/L	BETA	PARAMETRIC VALUES	REFERENCE INFORMATION
□	2.365	ELEVTR	.000 MACH	SREF 87.1560 50.1N.
◇	4.560	ELEVTR	.000 AILRON	LREF 19.2545 INCHES
◇	9.602	RUDER	.000 BDFLAP	BREF 14.0502 INCHES
△	11.510	SPOBRK	.000	YREF 12.5770 INCHES
				ZREF .0000 INCHES
				SCALE .0150

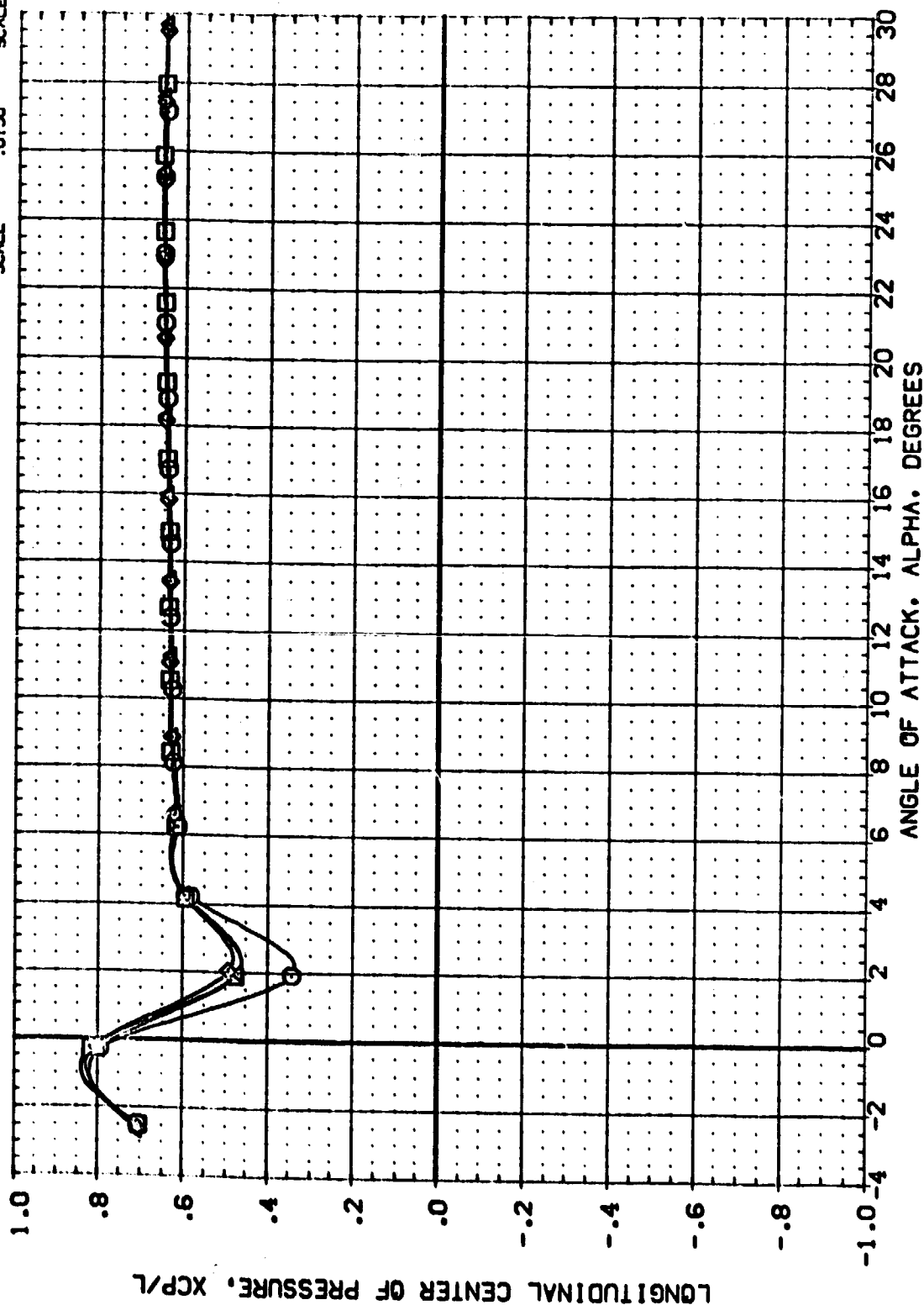


FIGURE 13 139B ORBITER (MOD NOSE) TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.ORB 3.(B21C7F5M4)(W107E23)(V7R5) (APP011)

SYMBOL	RV/L	PARAMETRIC VALUES				REFERENCE INFORMATION				
		BETA	ELEVTR	FACH	AILRON	SREF	LREF	SO, IN.	INCHES	INCHES
○	2.365	.000	.000	.000	.000	87.1560	19.3545	14.6502	12.5770	6.0000
□	4.560	.000	.000	.000	.000	14.6502	12.5770	6.0000	6.0000	.0150
◇	9.802	.000	.000	.000	.000	12.5770	6.0000	6.0000	6.0000	.0150
△	11.510	.000	.000	.000	.000	6.0000	6.0000	6.0000	6.0000	.0150

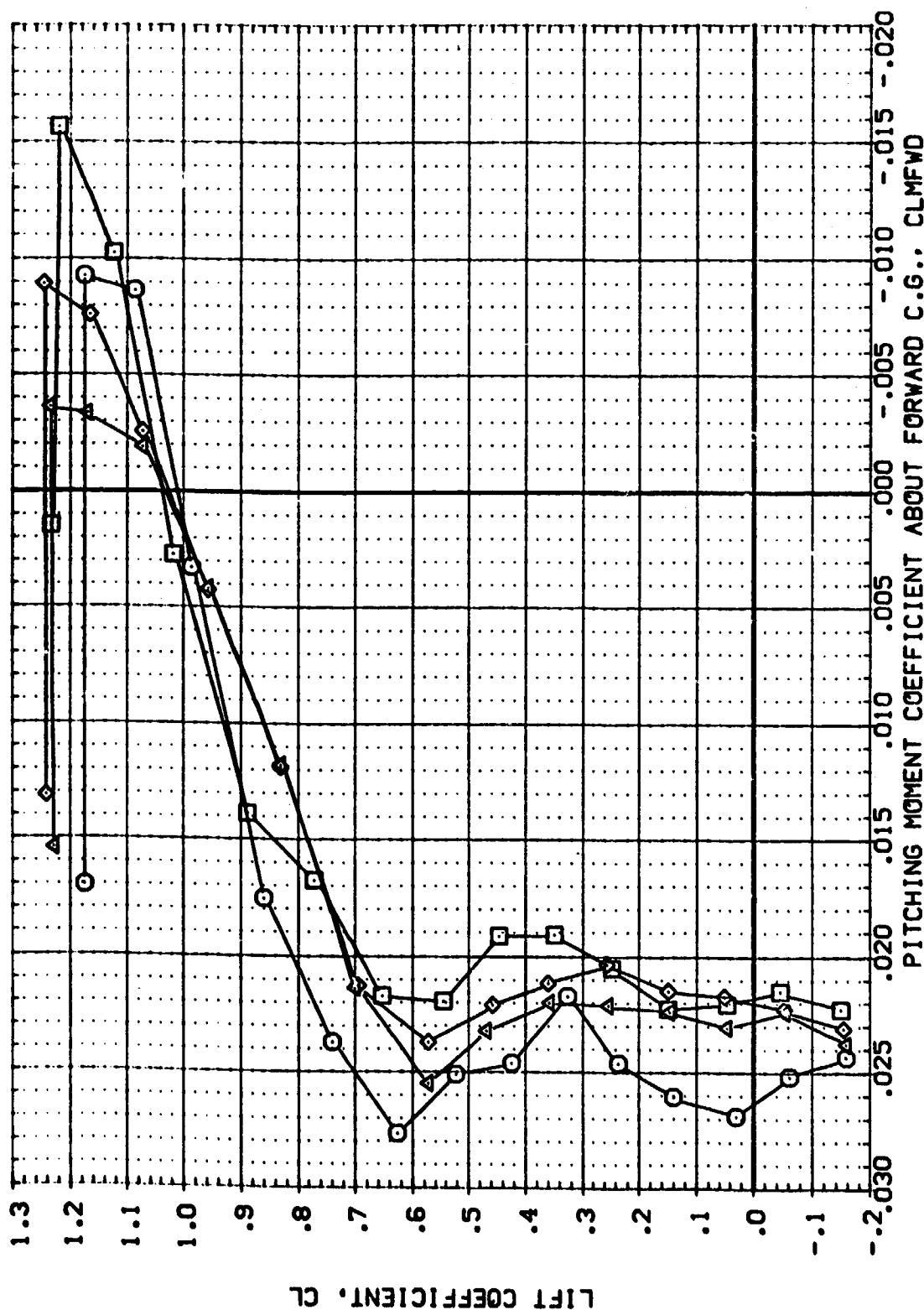


FIGURE 13 1398 ORBITER (MOD NOSE) TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

SYMBOL	RVL	BETA	PARAMETRIC VALUES	MACH	.247
○	2.365	ELEVTR	.000	A1LRON	.000
□	4.560	RUDER	.000	BDFLAP	.000
△	9.902	SPDRBK	.000		
◇	11.510				

REFERENCE INFORMATION

SREF	87.1560	SD, IN.
LREF	19.2545	INCHES
BREF	14.0502	INCHES
XTRP	12.5770	INCHES
YTRP	.0000	INCHES
ZTRP	6.0000	INCHES
SCALE	.0150	SCALE

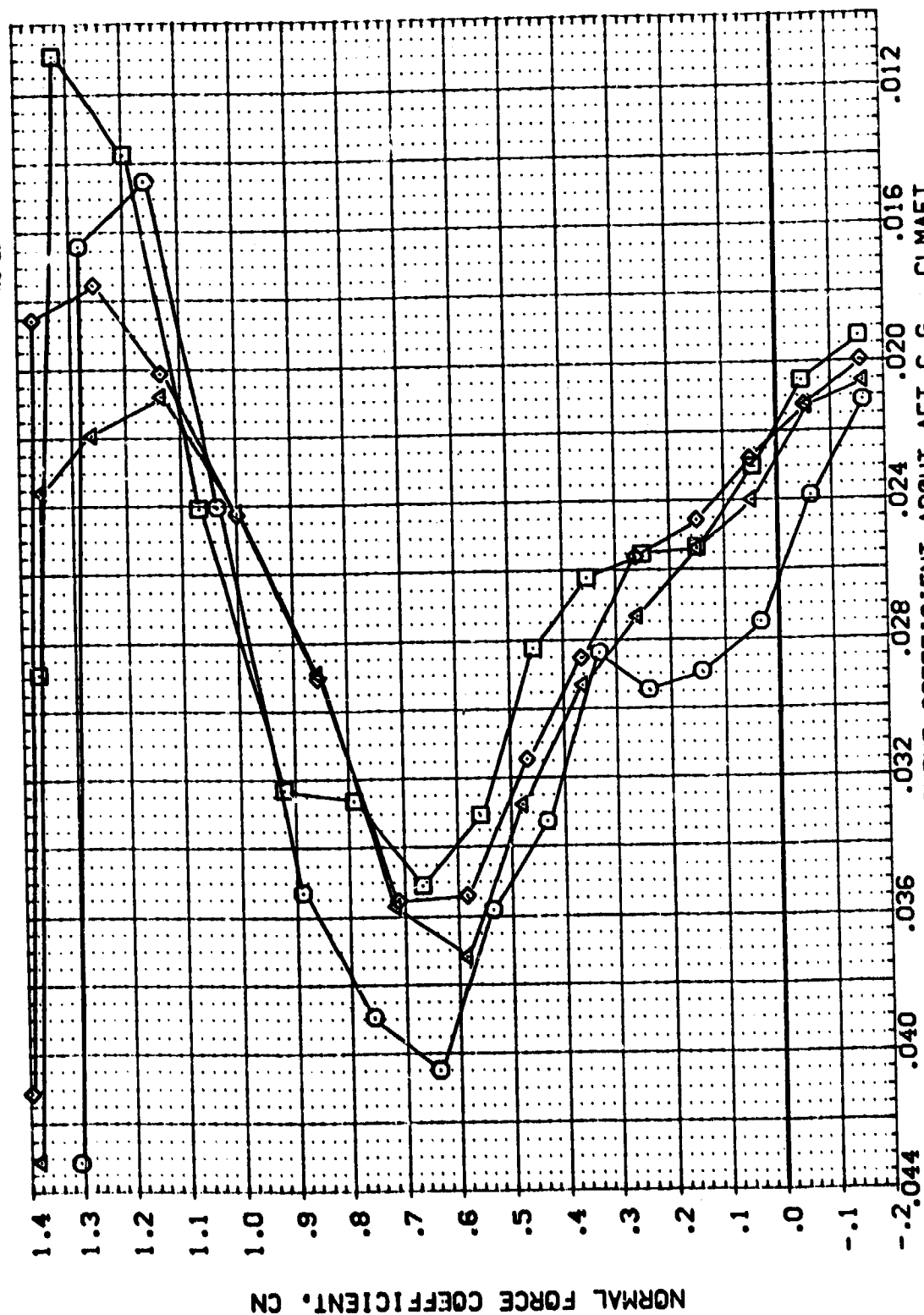


FIGURE 13 1398 ORBITER (MOD NOSE) TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.ORB 3.(B21C7F5M4)(W107E23)(V7R5) (APP011)

SYMBOL	RV/L	PARAMETRIC VALUES				REFERENCE INFORMATION			
		BETA	ELEVTR	RUDDER	SPOBRK	SRGT	LRGT	SRGT	SRGT
○	2.365	.000	.000	.000	.000	87.1560	19.3545	50.10	INCHES
□	4.560	.000	.000	.000	.000	14.0502	12.5770	INCHES	INCHES
◇	9.802	.000	.000	.000	.000	6.0000	6.0000	INCHES	INCHES
△	11.510	.000	.000	.000	.000	6.0000	6.0000	INCHES	INCHES
						SCALE	SCALE	SCALE	SCALE

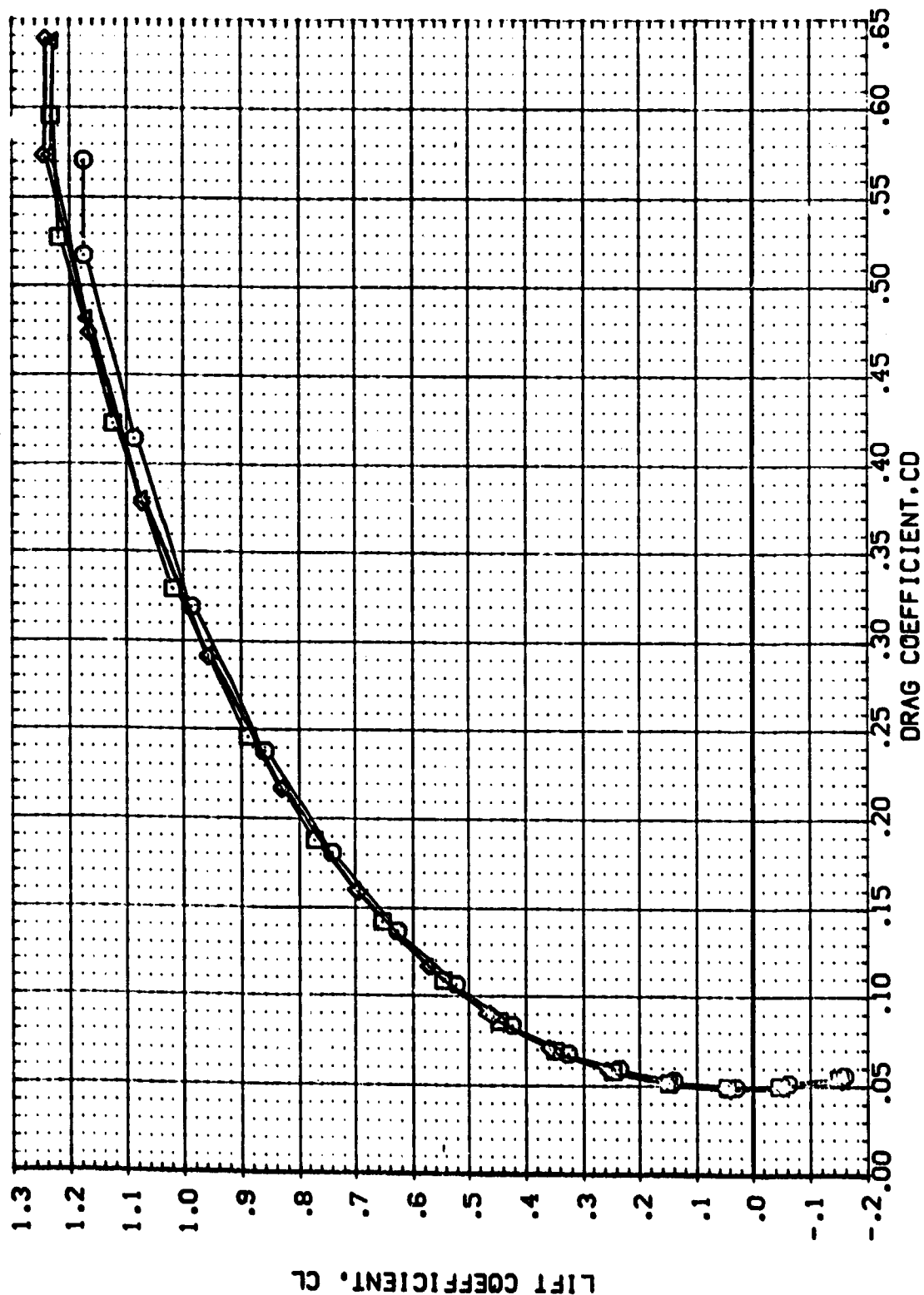


FIGURE 13 1398 ORBITER (MOD NOSE) TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.ORB 3.(B21C7F5M4)(W107E23)(V7R5) (RPP011)

SYMBOL

RM/L

BETA

PARAMETRIC VALUES

□

2.365

4.560

.000

.247

◇

9.802

.000

.000

.000

△

11.510

SPOBRK

.000

.000

REFERENCE INFORMATION
SREF 87.1560 SQ. IN.
LREF 19.3545 INCHES
BREF 14.0502 INCHES
XMRP 12.5770 INCHES
YMRP 6.0000 INCHES
ZMRP 6.0000 INCHES
SCALE .0150

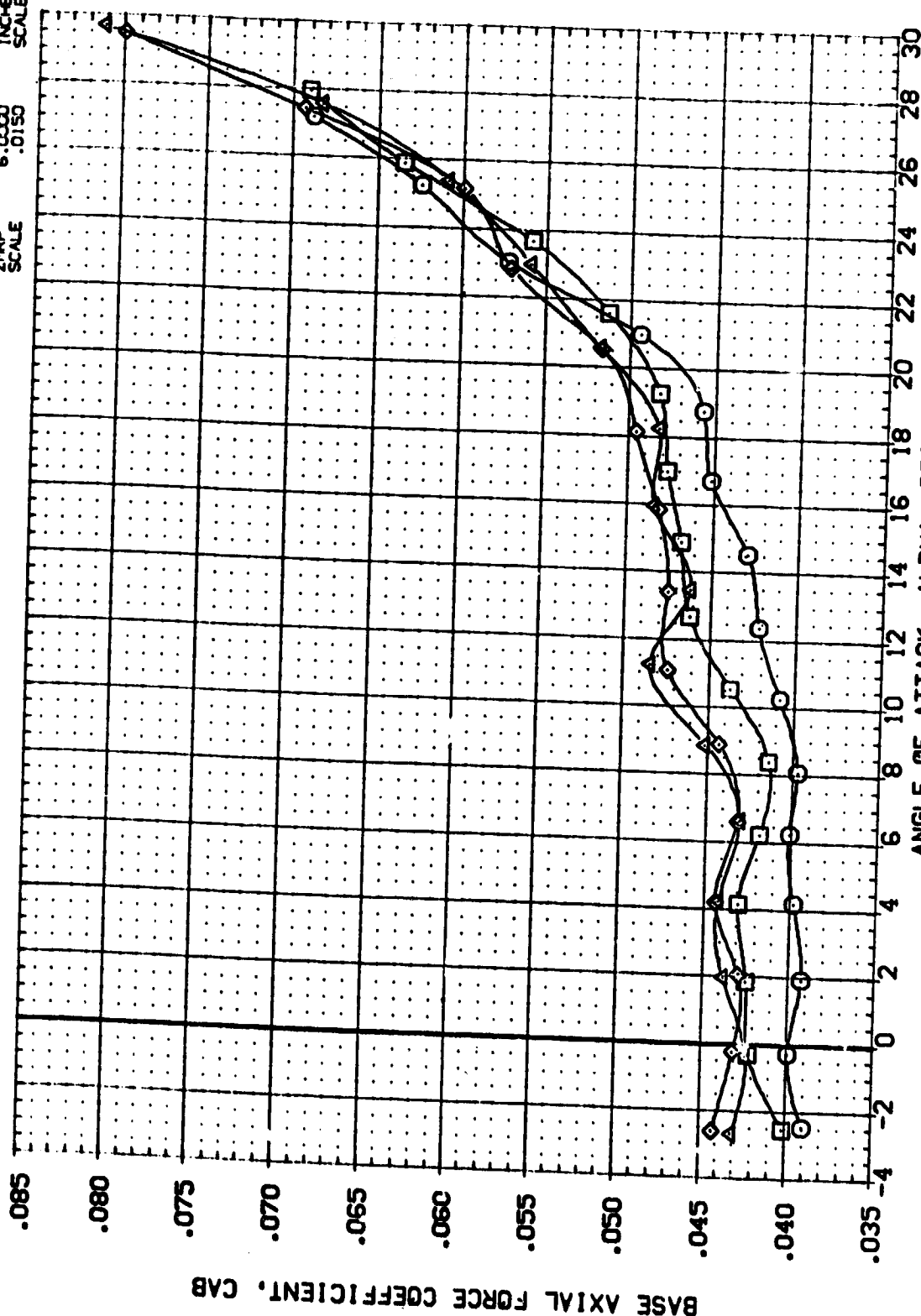


FIGURE 13 1398 ORBITER (MOD NOSE) TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPDRBK	RUDDER	REFERENCE INFORMATION
(APPO16)	DA17.LTPT138.CRB 3.(B21C7FSM4)(V107E23)(V7RS)	5.600	-14.250	24.920	.000	SREF 87.1560 SO.IN.
(APPO18)	DA17.LTPT138.CRB 3.(B21C7FSM4)(V107E23)(V7RS)	.000	-14.250	24.920	.000	LREF 19.3545 INCHES
(APPO14)	DA17.LTPT138.CRB 3.(B21C7FSM4)(V107E23)(V7RS)	-5.400	-14.250	24.920	.000	BREF 14.0532 INCHES
(APPO15)	DA17.LTPT138.CRB 3.(B21C7FSM4)(V107E23)(V7RS)	-11.600	-14.250	24.920	.000	YREF 12.5770 INCHES
						ZREF .0000 INCHES
						SCALE 6.0000 INCHES
						SCALE .0150

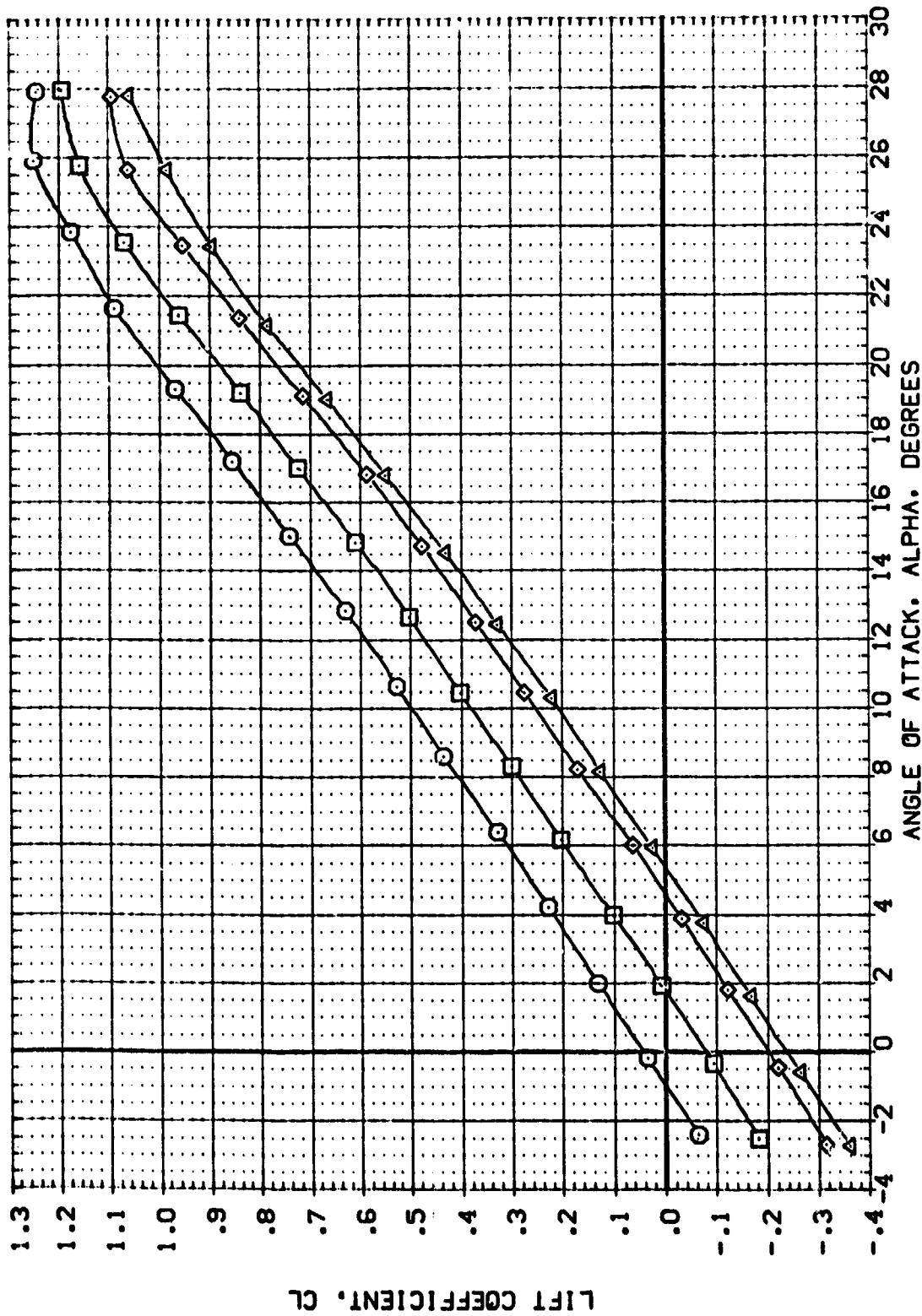


FIGURE 14 139B ORBITER (MOD NOSE) ELEVON DEFLECTION EFFECTS

(AJRN/L = 4.70

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(APPO16) CA17.LTPT138.CRB 3.(B21C7FSM)(V107E23)(V7RS)
 (APPO15) CA17.LTPT138.CRB 3.(B21C7FSM)(V107E23)(V7RS)
 (APPO14) CA17.LTPT138.CRB 3.(B21C7FSM)(V107E23)(V7RS)
 (APPO13) CA17.LTPT138.CRB 3.(B21C7FSM)(V107E23)(V7RS)

ELEVTR 5.600
 BOFLAP -14.250
 SPDBRK 24.920
 RUDDER .000

REFERENCE INFORMATION
 SREF 87.1560 INCHES
 LREF 19.3545 INCHES
 BREF 14.0502 INCHES
 XMRP 12.5770 INCHES
 YMRP .0000 INCHES
 ZMRP 6.0000 INCHES
 SCALE .0150

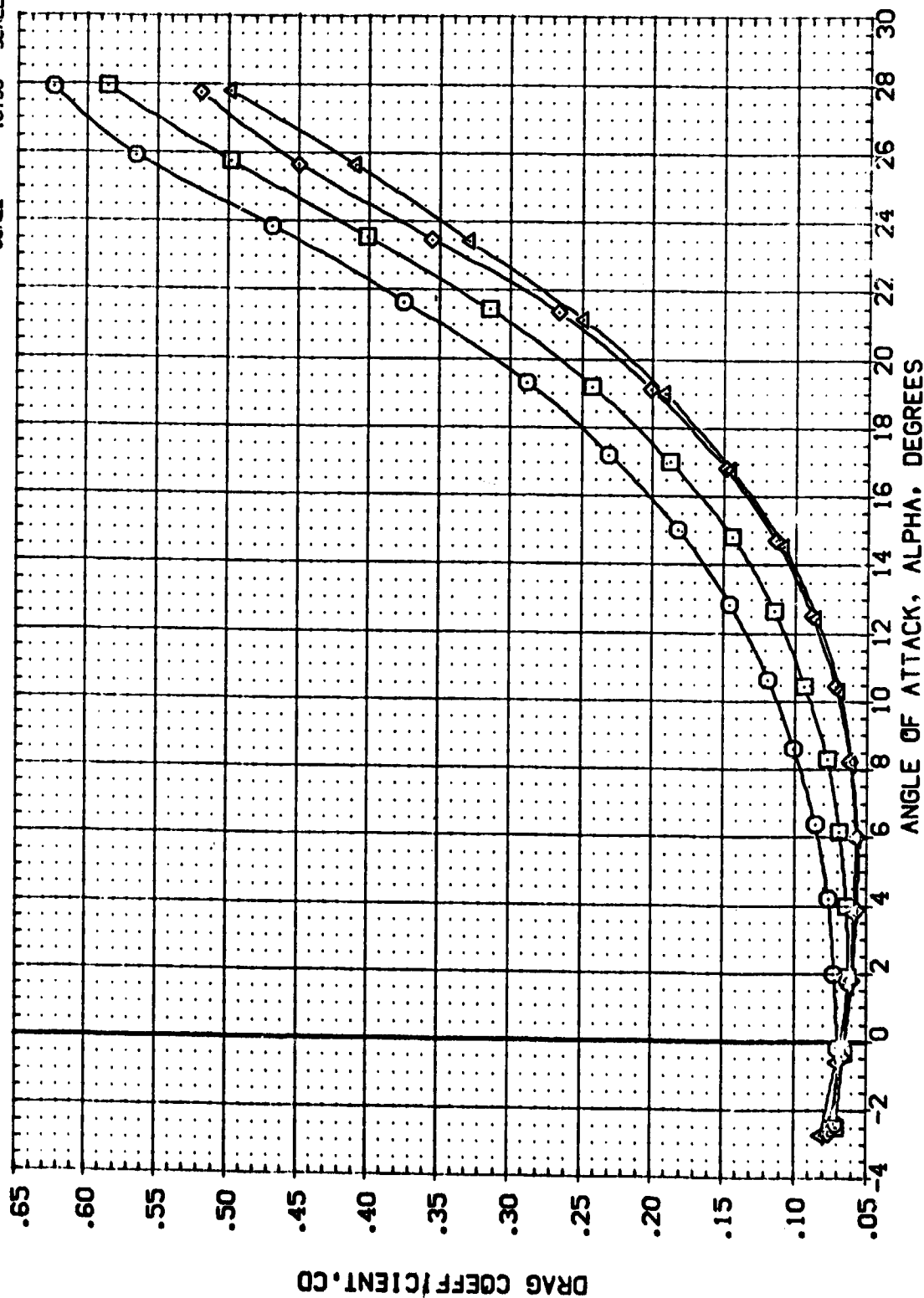


FIGURE 14 139B ORBITER (MOD NOSE) ELEVON DEFLECTION EFFECTS

(A)RN/L = 4.70



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BDFLAP	SPODRK	RUDDER	REFERENCE INFORMATION
(APPO16)	0A17.LTPT138.058 3.(B21C7F544)(V107E23)(V7R5)	5.670	-14.250	24.920	.000	SREF 87.1560 SQ. IN
(APPO15)	0A17.LTPT138.058 3.(B21C7F544)(V107E23)(V7R5)	-5.400	-14.250	24.920	.000	LREF 19.3545 INCHES
(APPO14)	0A17.LTPT138.058 3.(B21C7F544)(V107E23)(V7R5)	-11.800	-14.250	24.920	.000	BREF 14.0502 INCHES
						XREF 12.5770 INCHES
						YREF .0000 INCHES
						ZREF 6.0000 INCHES
						SCALE .0150

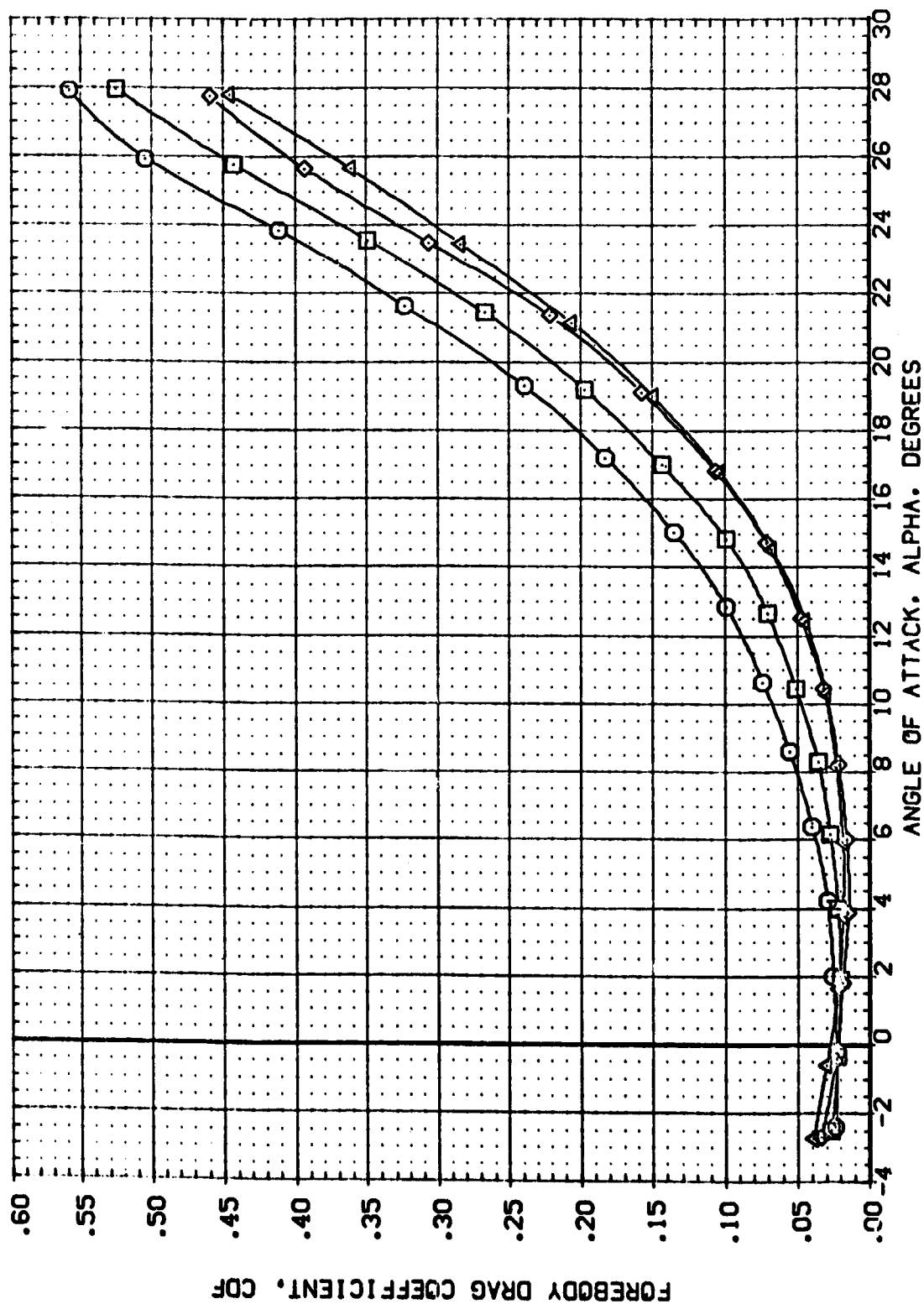


FIGURE 14 1398 ORBITER (MOD NOSE) ELEVON DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL
(APP016)
(APP008)
(APP014)
(APP015)

CONFIGURATION DESCRIPTION
0A17.LTPT138.0R8 3.(B21C7F5M4)(V107E231)(V7R5)
0A17.LTPT138.0R8 3.(B21C7F5M4)(V107E231)(V7R5)
0A17.LTPT138.0R8 3.(B21C7F5M4)(V107E231)(V7R5)
0A17.LTPT138.0R8 3.(B21C7F5M4)(V107E231)(V7R5)

ELEVTR BDFLAP SPOBRK RUDDER
5.600 -14.250 24.920 .000
-5.400 -14.250 24.920 .000
-11.800 -14.250 24.920 .000

REFERENCE INFORMATION
SREF 87.1560 SQ.IN.
LRCF 19.3545 INCHES
BREF 14.0502 INCHES
VREF 12.5770 INCHES
WREF 6.0000 INCHES
ZREF .0150 INCHES
SCALE

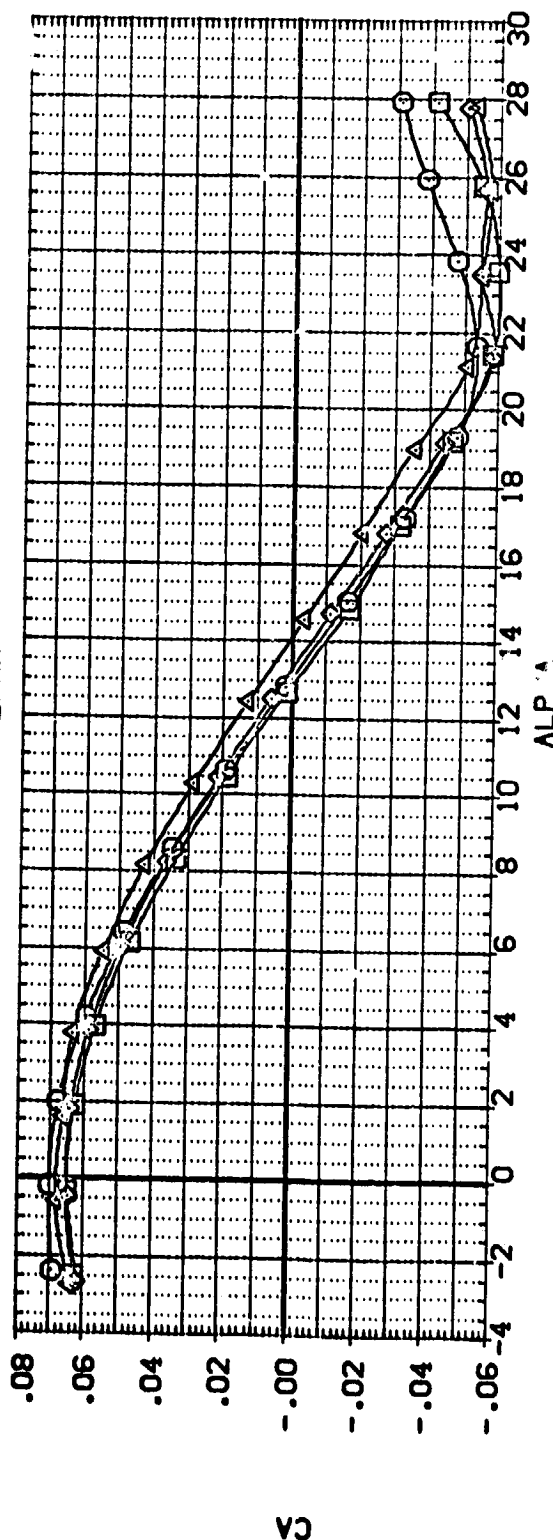
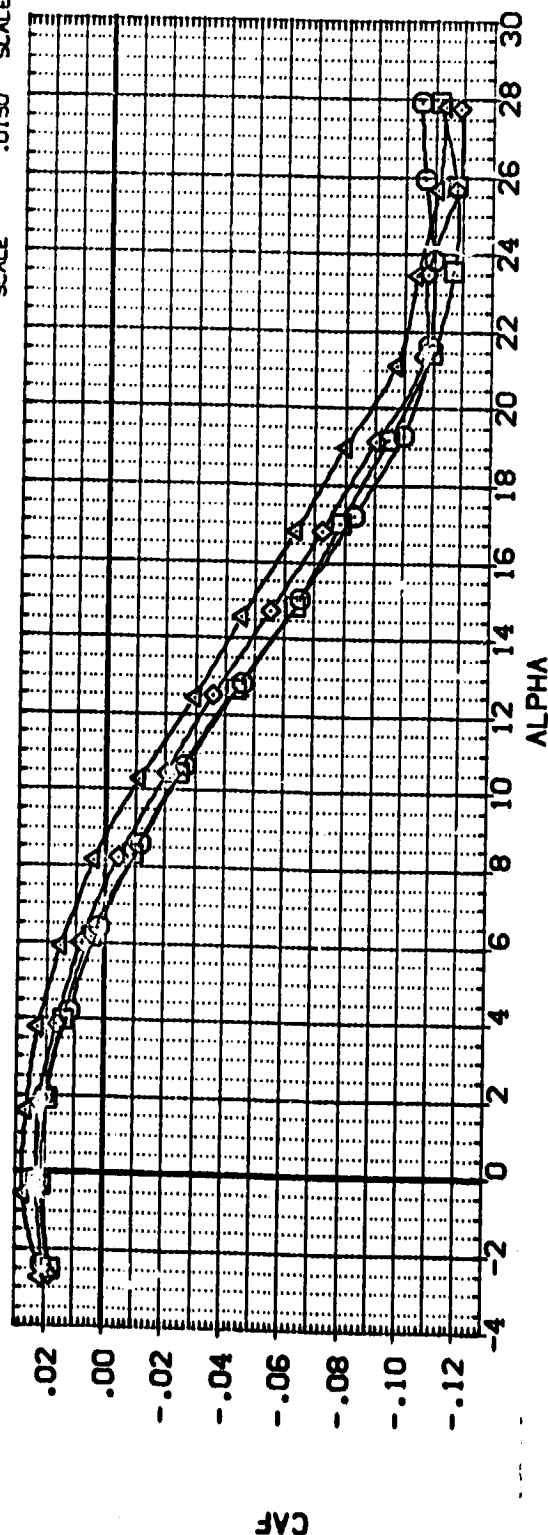


FIGURE 14 1398 ORBITER (MOD NOSE) ELEVON DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(AP016)	DA17.LTPT138.CR8 3.(B21C7F5M4)(V107E23)(V7RS)	5.600	-14.250	24.920	.000	SREF 87.1560 SO.IN
(AP017)	DA17.LTPT138.CR8 3.(B21C7F5M4)(V107E23)(V7RS)	.000	-14.250	24.920	.000	LREF 19.3545 INCHES
(AP014)	DA17.LTPT138.CR8 3.(B21C7F5M4)(V107E23)(V7RS)	-5.400	-14.250	24.920	.000	BREF 14.0502 INCHES
(AP015)	DA17.LTPT138.CR8 3.(B21C7F5M4)(V107E23)(V7RS)	-11.800	-14.250	24.920	.000	XMRP 12.5770 INCHES
						ZMRP 6.0000 INCHES
						SCALE .0150 SCALE

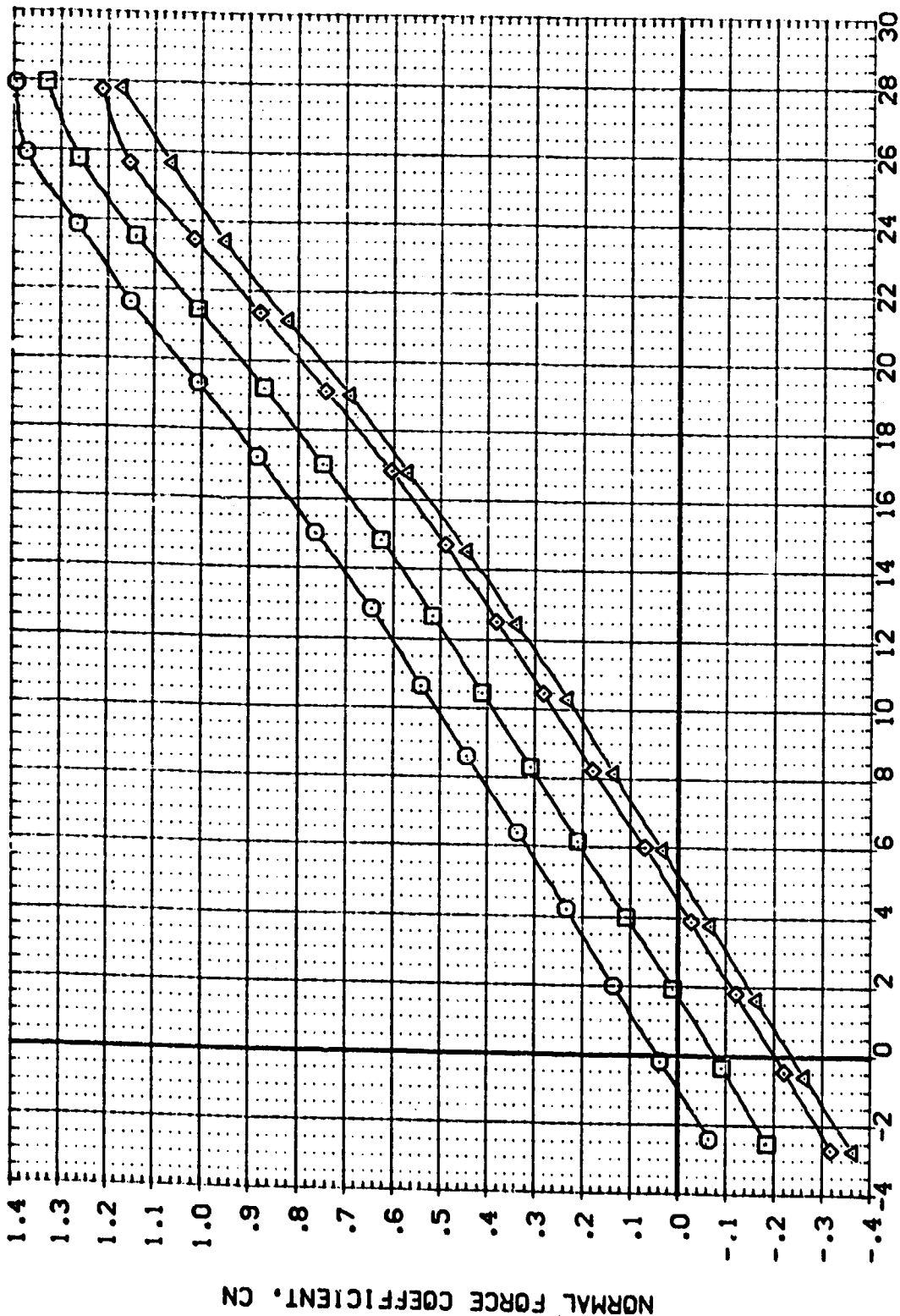


FIGURE 14 139B ORBITER (MOD NOSE) ELEVON DEFLECTION EFFECTS

(AJRN/L = 4.70

(APP016)
(APP009)
(APP014)
(APP015)

CONFIGURATION DESCRIPTION

0A17.LTP138.C08 3.(B2)C7FSM4.(V107E23).(V7RS)
0A17.LTP138.C08 3.(B2)C7FSM4.(V107E23).(V7RS)
0A17.LTP138.C08 3.(B2)C7FSM4.(V107E23).(V7RS)
0A17.LTP138.C08 3.(B2)C7FSM4.(V107E22).(V7RS)

ELEVTR	BOFLAP	SPOBRK	RUDDER
5.600	-14.250	24.920	.000
.000	-14.250	24.920	.000
-5.400	-14.250	24.920	.000
-11.800	-14.250	24.920	.000

REFERENCE INFORMATION	
SREF	87.1560 SQ. IN.
LREF	19.3545 INCHES
BREF	14.0502 INCHES
XPMP	12.5770 INCHES
YMP	6.0000 INCHES
ZMP	6.0000 INCHES
SCALE	.0150 SCALE

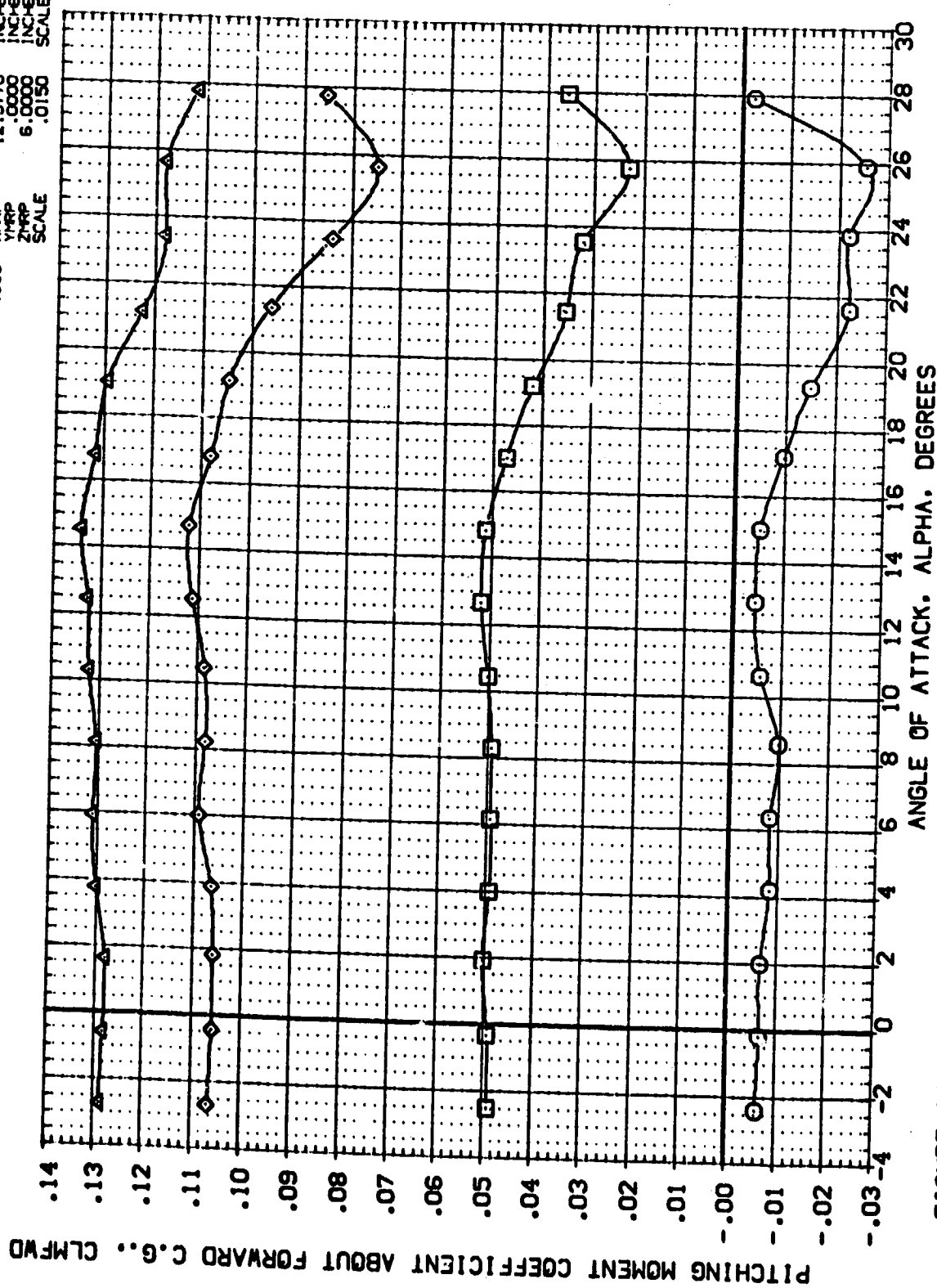


FIGURE 14 139B ORBITER (MOD NOSE) ELEVON DEFLECTION EFFECTS

$$[A]_{RN/L} = 4.7G$$

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPDBRK	RUDDER	REFERENCE INFORMATION
(APPO16)	CA17, L1PT138, CR8 3. (B21C7FSM) (V107E23) (V7RS)	5.600	-14.250	24.920	.000	SREF 87.1560 SC.IN.
(APPO15)	CA17, L1PT138, CR8 3. (B21C7FSM) (V107E23) (V7RS)	-5.400	-14.250	24.920	.000	LREF 19.3545 NC-ES
(APPO14)	CA17, L1PT138, CR8 3. (B21C7FSM) (V107E23) (V7RS)	-11.800	-14.250	24.920	.000	BREF 14.0502 NC-ES
(APPO15)	CA17, L1PT138, CR8 3. (B21C7FSM) (V107E23) (V7RS)					XMRP 12.5373 NC-ES
						ZMRP 6.0000 NC-ES
						SCALE .0153 SCALE

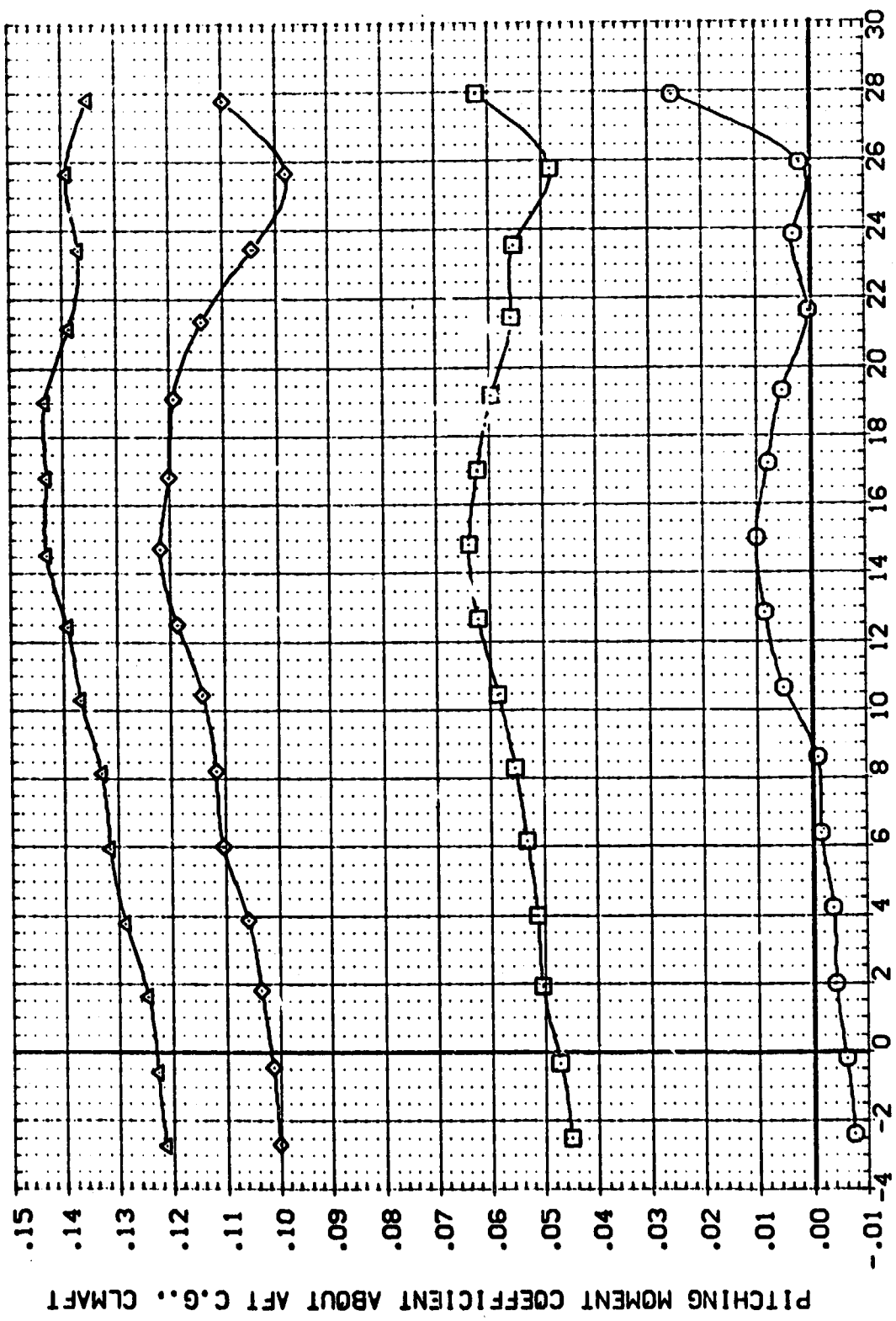


FIGURE 14 1398 ORBITER (MOD NOSE) ELEVON DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BDLAP	SPOBRK	RUDER	REFERENCE INFORMATION
(APPC16)	DA17.LTPT138.CRB 3.(B21C7FS4)(V107E23)(V7R5)	5.600	-14.250	24.920	.000	SREF 87.1560
(APPC15)	DA17.LTPT138.CRB 3.(B21C7FS4)(V107E23)(V7R5)	.000	-14.250	24.920	.000	LREF 19.3545
(APPC14)	DA17.LTPT138.CRB 3.(B21C7FS4)(V107E23)(V7R5)	-5.400	-14.250	24.920	.000	XMRP 12.5770
(APPC15)	DA17.LTPT138.CRB 3.(B21C7FS4)(V107E23)(V7R5)	-11.800	-14.250	24.920	.000	YMRP 6.0000
						ZMRP .0150
						SCALE

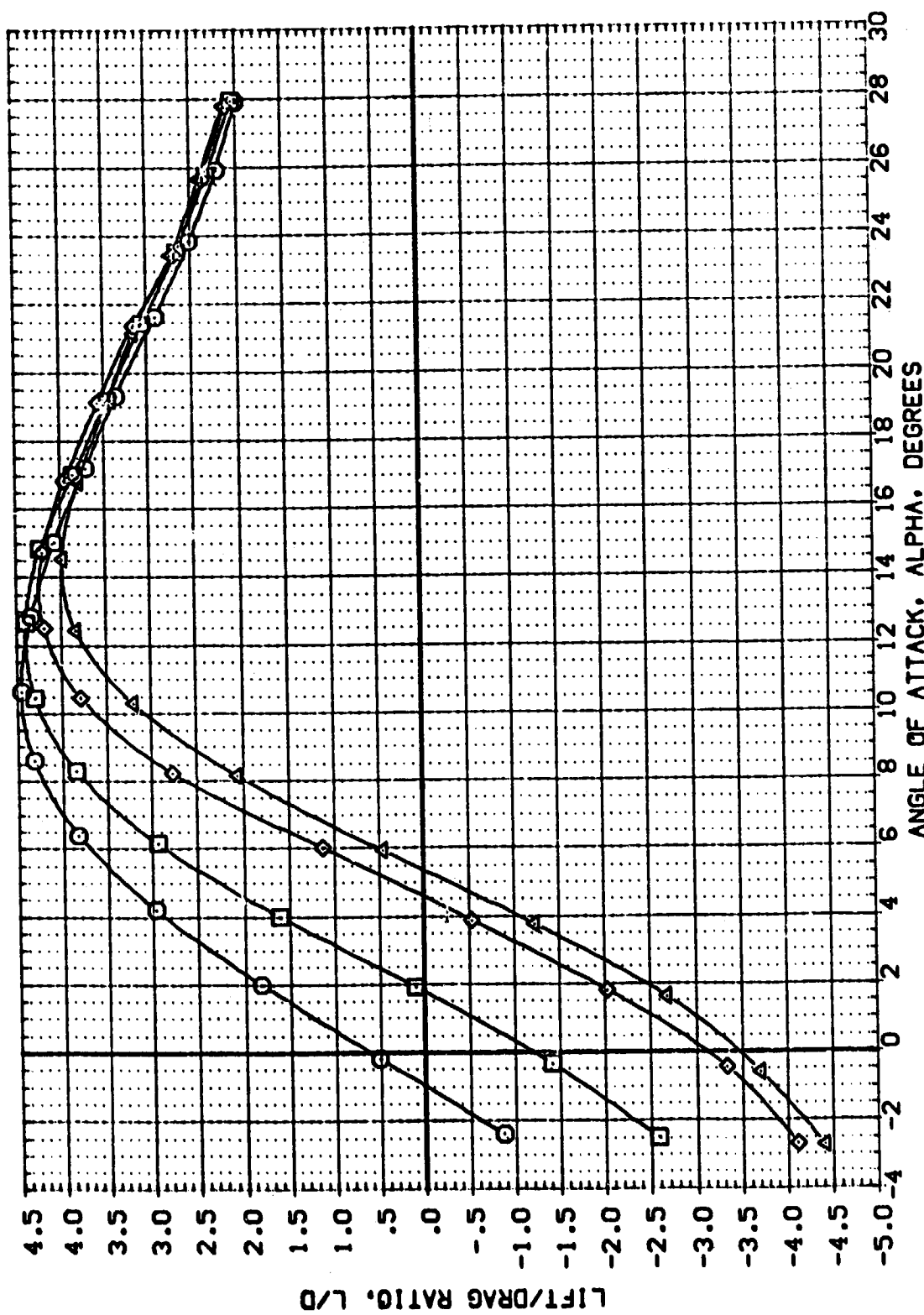
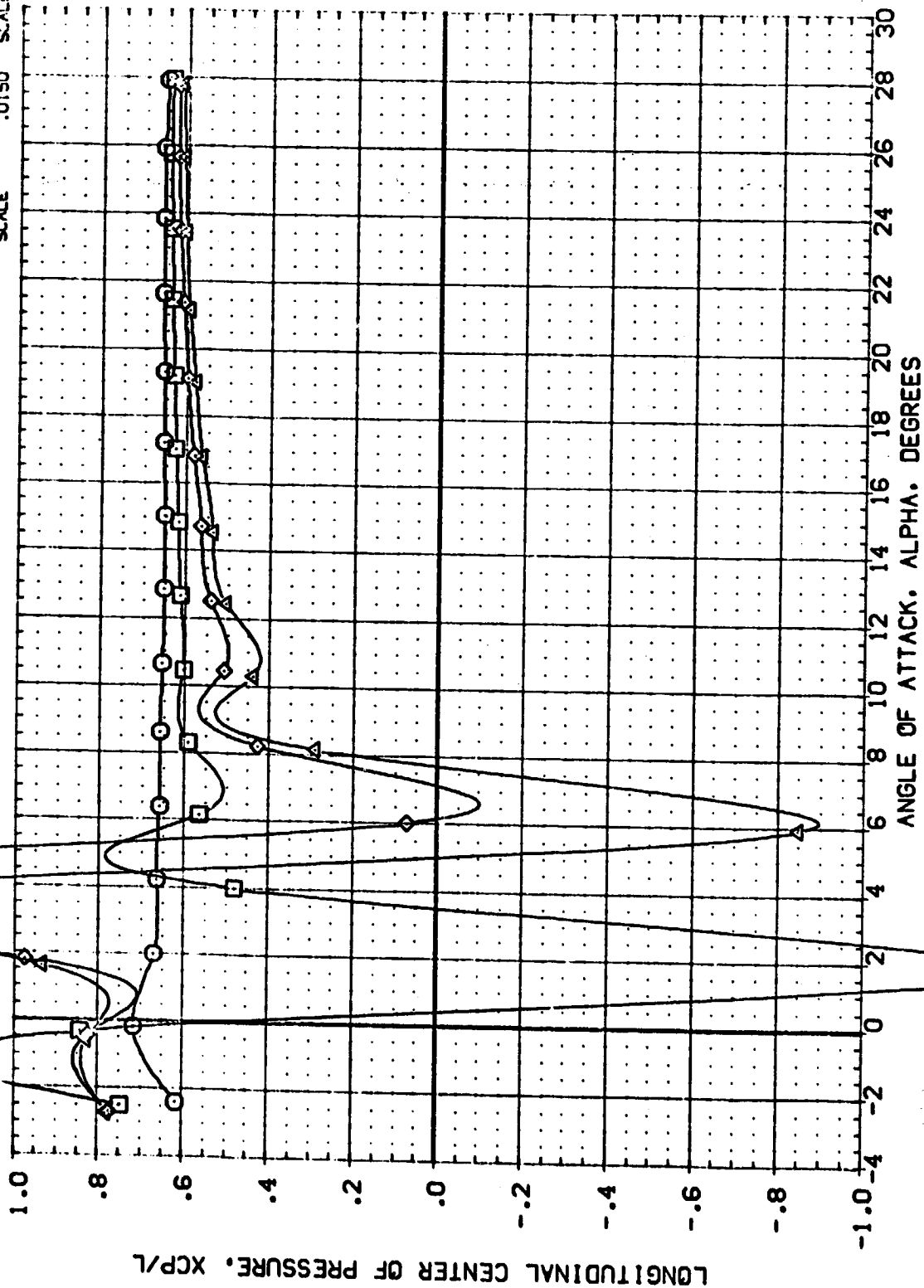


FIGURE 14 1398 ORBITER (MOD NOSE) ELEVON DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDER	REFERENCE INFORMATION
(APPO16)	DA17.LTPT138.C13 3.(B21)7FSM4)(V107E23)(V7RS)	5.600	-14.250	24.920	.000	SREF 67.1560 SQ.IN.
(APPO19)	DA17.LTPT138.C13 3.(B21)7FSM4)(V107E23)(V7RS)	.000	-14.250	24.920	.000	LREF 19.3545 INCHES
(APPO14)	DA17.LTPT138.C13 3.(B21)7FSM4)(V107E23)(V7RS)	-5.400	-14.250	24.920	.000	BREF 12.5770 INCHES
(APPO15)	DA17.LTPT138.C13 3.(B21)7FSM4)(V107E23)(V7RS)	-11.800	-14.250	24.920	.000	ZREF 6.0000 INCHES
						ZPRP .0150 SCALE



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(APPO16) CA17-LTPT138-CRB 3. (B21C75M4)(V107E23)(VTRS)
 (APPO15) CA17-LTPT138-CRB 3. (B21C75M4)(V107E23)(VTRS)
 (APPO14) CA17-LTPT138-CRB 3. (B21C75M4)(V107E23)(VTRS)
 (APPO13) CA17-LTPT138-CRB 3. (B21C75M4)(V107E23)(VTRS)

ELEVTR BOFLAP SPDBRK RUDDER
 5.600 -14.250 24.920 .000
 .000 -14.250 24.920 .000
 -5.400 -14.250 24.920 .000
 -11.600 -14.250 24.920 .000

REFERENCE INFORMATION
 SREF 87.1560 50. IN.
 LREF 19.3545 INCHES
 BREF 14.0502 INCHES
 XPRD 12.5772 INCHES
 YPRD .0000 INCHES
 ZPRD 6.0000 INCHES
 SCALE .0153 SCALE

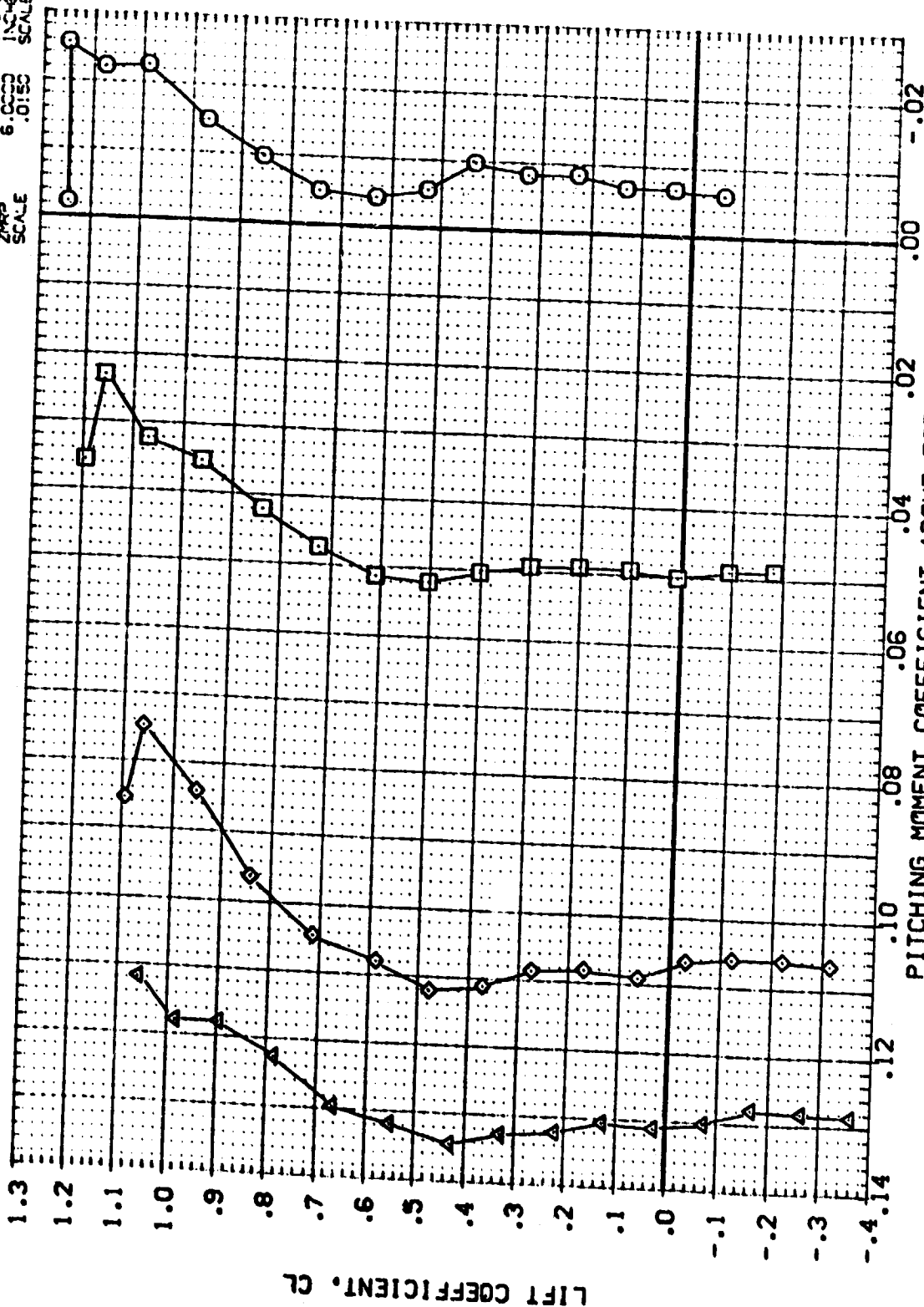


FIGURE 14 1398 ORBITER (MOD NOSE) ELEVON DEFLECTION EFFECTS
 (A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APPO16)	DA17.LTPT138.0R8 3.(B2IC7FSM)(V107E23)(V7R5)	5.600	-14.250	24.920	.000	SREF 87.1560 50. IN.
(APPO09)	DA17.LTPT138.0R8 3.(B2IC7FSM)(V107E23)(V7R5)	.000	-14.250	24.920	.000	LREF 19.3545 INCHES
(APPO14)	DA17.LTPT138.0R8 3.(B2IC7FSM)(V107E23)(V7R5)	-5.400	-14.250	24.920	.000	BREF 14.0502 INCHES
(APPO15)	DA17.LTPT138.0R8 3.(B2IC7FSM)(V107E23)(V7R5)	-11.800	-14.250	24.920	.000	YMRP 12.5770 INCHES
						ZMRP 6.0000 INCHES
						SCALE .0150

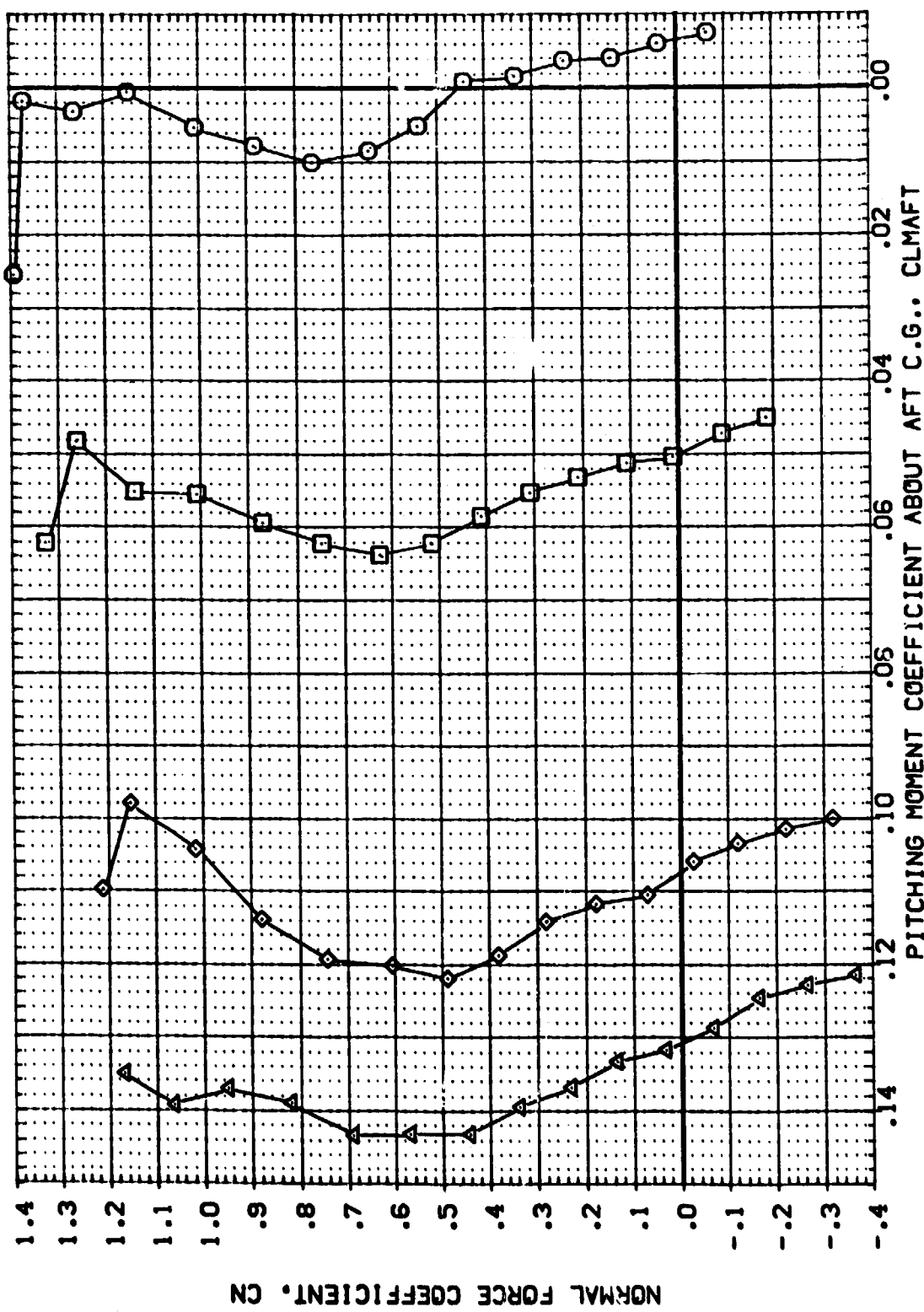


FIGURE 14 139B ORBITER (MOD NOSE) ELEVON DEFLECTION EFFECTS

(A) RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BDPLAP	SPDRBK	RUDDER	REFERENCE INFORMATION
(APPO16)	DA17.LTPT138.DR8 3.(B21C7F5M)(V107E23)(V7R5)	5.600	-14.250	24.920	.000	SREF 87.1560 SO.IN.
(APPO18)	DA17.LTPT138.DR8 3.(B21C7F5M)(V107E23)(V7R5)	.000	-14.250	24.920	.000	LREF 19.3545 INCHES
(APPO14)	DA17.LTPT138.DR8 3.(B21C7F5M)(V107E23)(V7R5)	-5.400	-14.250	24.920	.000	BREF 14.0502 INCHES
(APPO15)	DA17.LTPT138.DR8 3.(B21C7F5M)(V107E23)(V7R5)	-11.800	-14.250	24.920	.000	XREF 12.5770 INCHES
						YREF 6.0000 INCHES
						ZREF .0150 INCHES
						SCALE

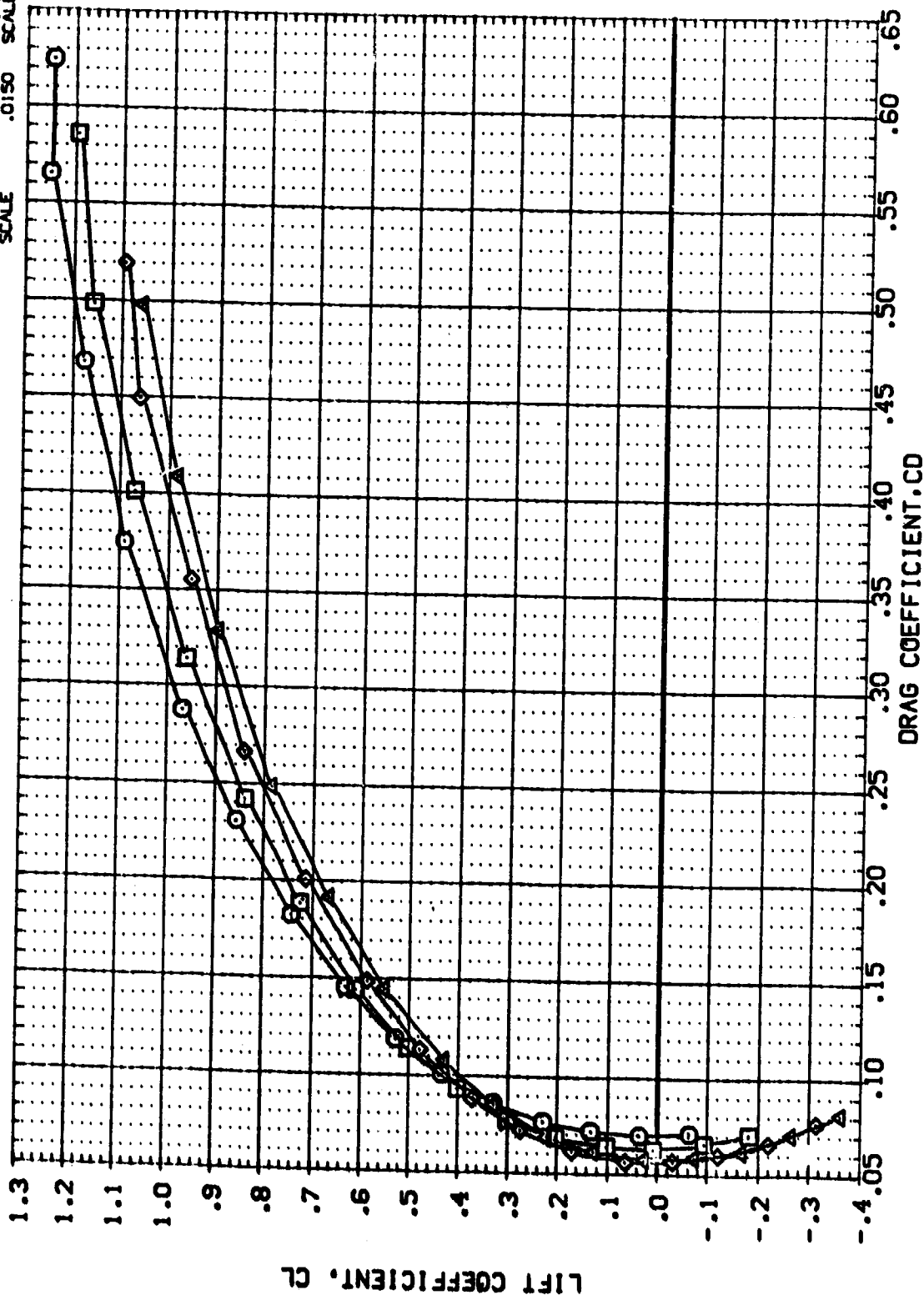


FIGURE 14 1398 ORBITER (MOD NOSE) ELEVON DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPDRBK	RUDDER	REFERENCE INFORMATION
(R0P016)	CA17.LTPT138.CRB 3.(B21C7FSM4)(V107E23)(V7RS)	5.600	-14.250	24.920	.000	SREF 87.1560 SO.IN.
(R0P009)	CA17.LTPT138.CRB 3.(B21C7FSM4)(V107E23)(V7RS)	.000	-14.250	24.920	.000	LREF 19.3545 INCHES
(R0P014)	CA17.LTPT138.CRB 3.(B21C7FSM4)(V107E23)(V7RS)	-5.400	-14.250	24.920	.000	BREF 14.0502 INCHES
(R0P015)	CA17.LTPT138.CRB 3.(B21C7FSM4)(V107E23)(V7RS)	-11.600	-14.250	24.920	.000	XREF 12.5770 INCHES
						YREF 6.0000 INCHES
						ZREF 6.0150 INCHES
						SCALE

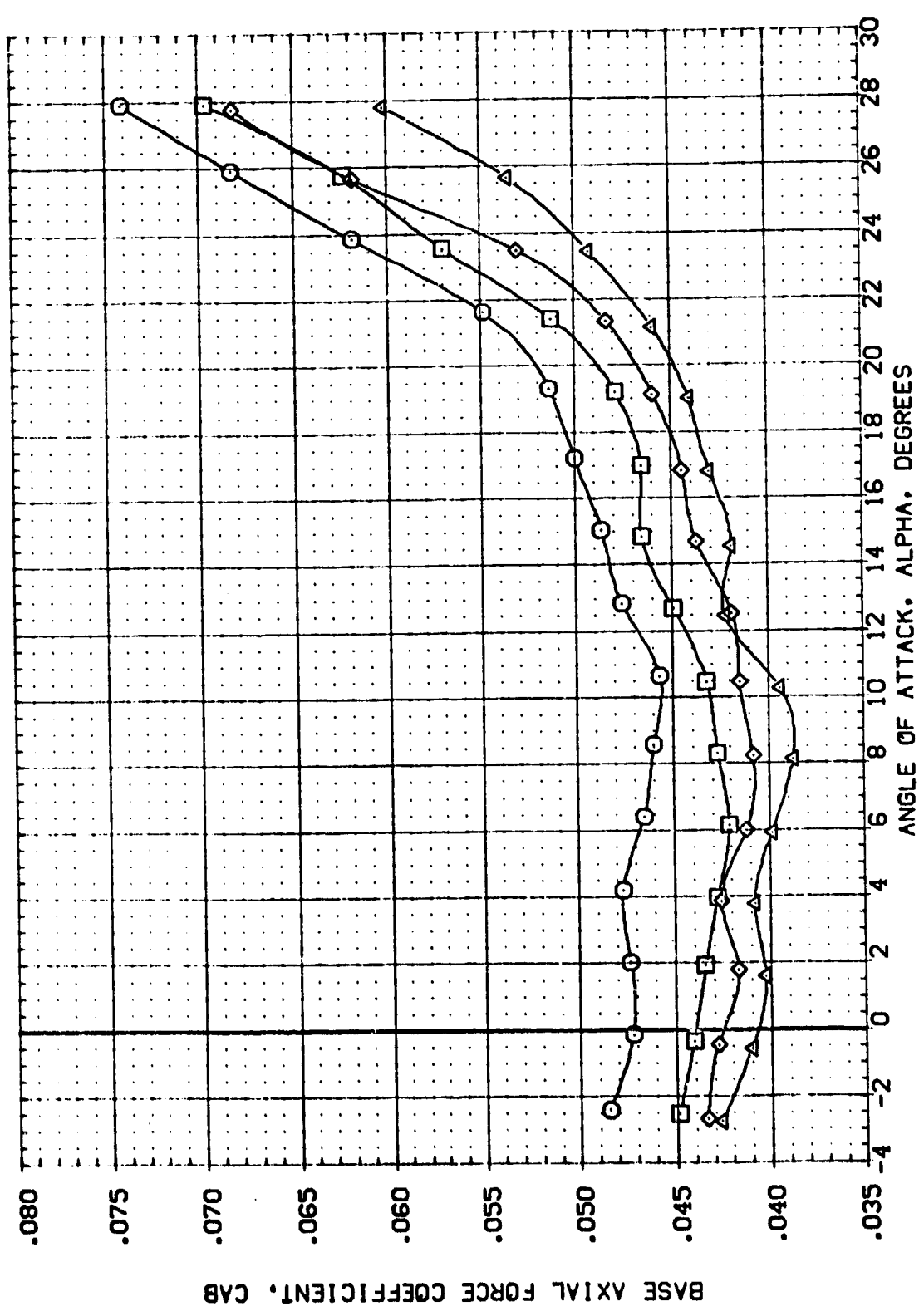


FIGURE 14 139B ORBITER (MOD NOSE) ELEVON DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BDFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APPC16)	DA17.LTPT138.CRB 3. (B21C7FSM4)(V107E23)(V7RS)	5.600	-14.250	24.920	.000	SREF 87.1560 SQ. IN.
(APPC19)	DA17.LTPT138.CRB 3. (B21C7FSM4)(V107E23)(V7RS)	.000	-14.250	24.920	.000	LREF 19.3545 INCHES
(APPC14)	DA17.LTPT138.CRB 3. (B21C7FSM4)(V107E23)(V7RS)	-5.400	-14.250	24.920	.000	BREF 14.0502 INCHES
(APPC15)	DA17.LTPT138.CRB 3. (B21C7FSM4)(V107E23)(V7RS)	-11.800	-14.250	24.920	.000	YREF 12.5770 INCHES
						ZREF 6.0000 INCHES
						SCALE .0150

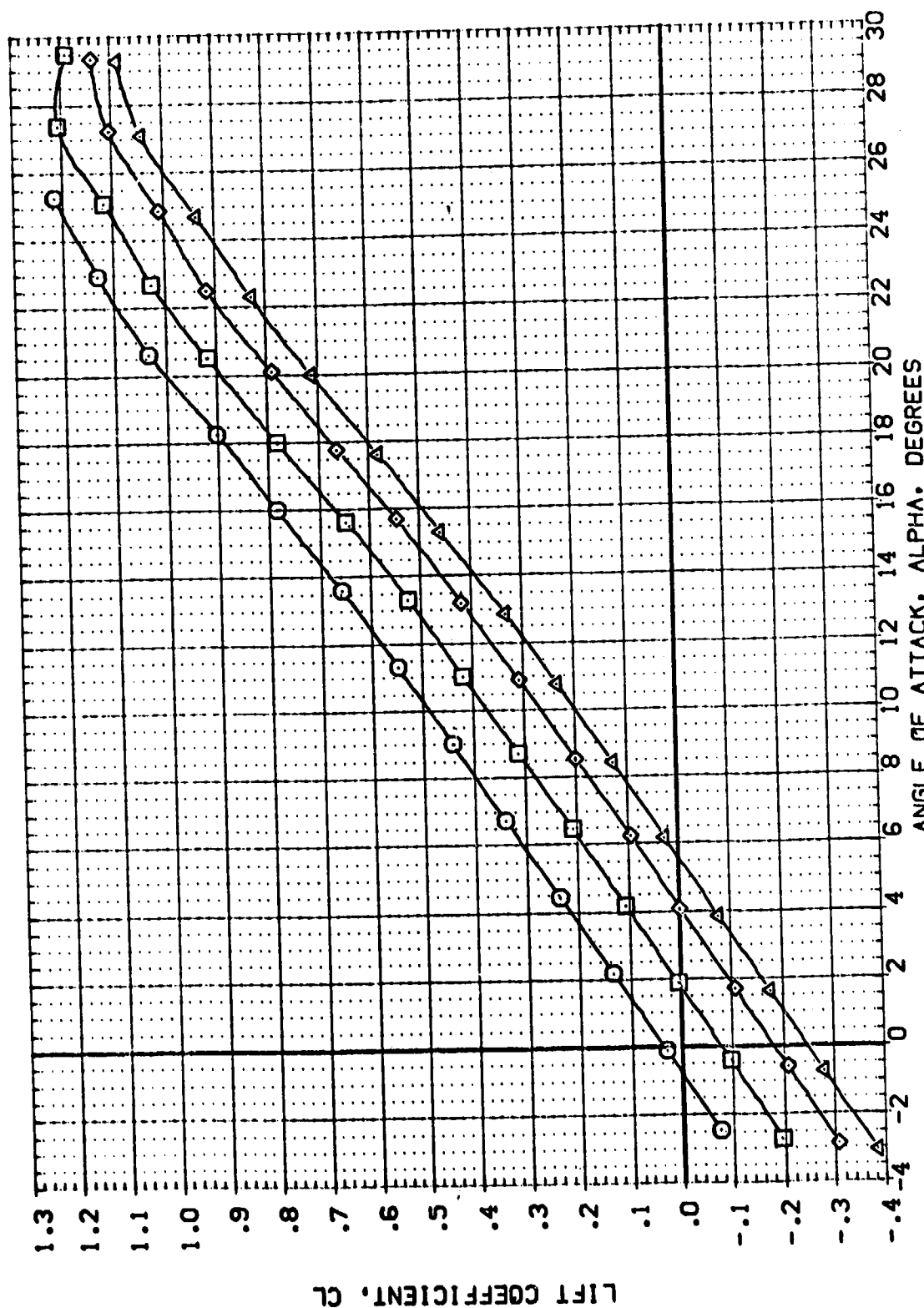


FIGURE 14 1398 ORBITER (MOD NOSE) ELEVON DEFLECTION EFFECTS

(AJRN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPDBRK	RUDDER	REFERENCE INFORMATION
(APP016)	CA17,LTPT138,CR8 3.(B21C7FSM4)(V107E23)(V7RS)	5.600	-14.250	24.920	.000	SREF 87.1560 SQ.IN.
(APP009)	CA17,LTPT138,CR8 3.(B21C7FSM4)(V107E23)(V7RS)	.000	-14.250	24.920	.000	LREF 19.3545 INCHES
(APP014)	CA17,LTPT138,CR8 3.(B21C7FSM4)(V107E23)(V7RS)	-5.400	-14.250	24.920	.000	BREF 14.0502 INCHES
(APP015)	CA17,LTPT138,CR8 3.(B21C7FSM4)(V107E23)(V7RS)	-11.800	-14.250	24.920	.000	YARP 12.5770 INCHES
						ZARP 6.0000 INCHES
						SCALE .0150

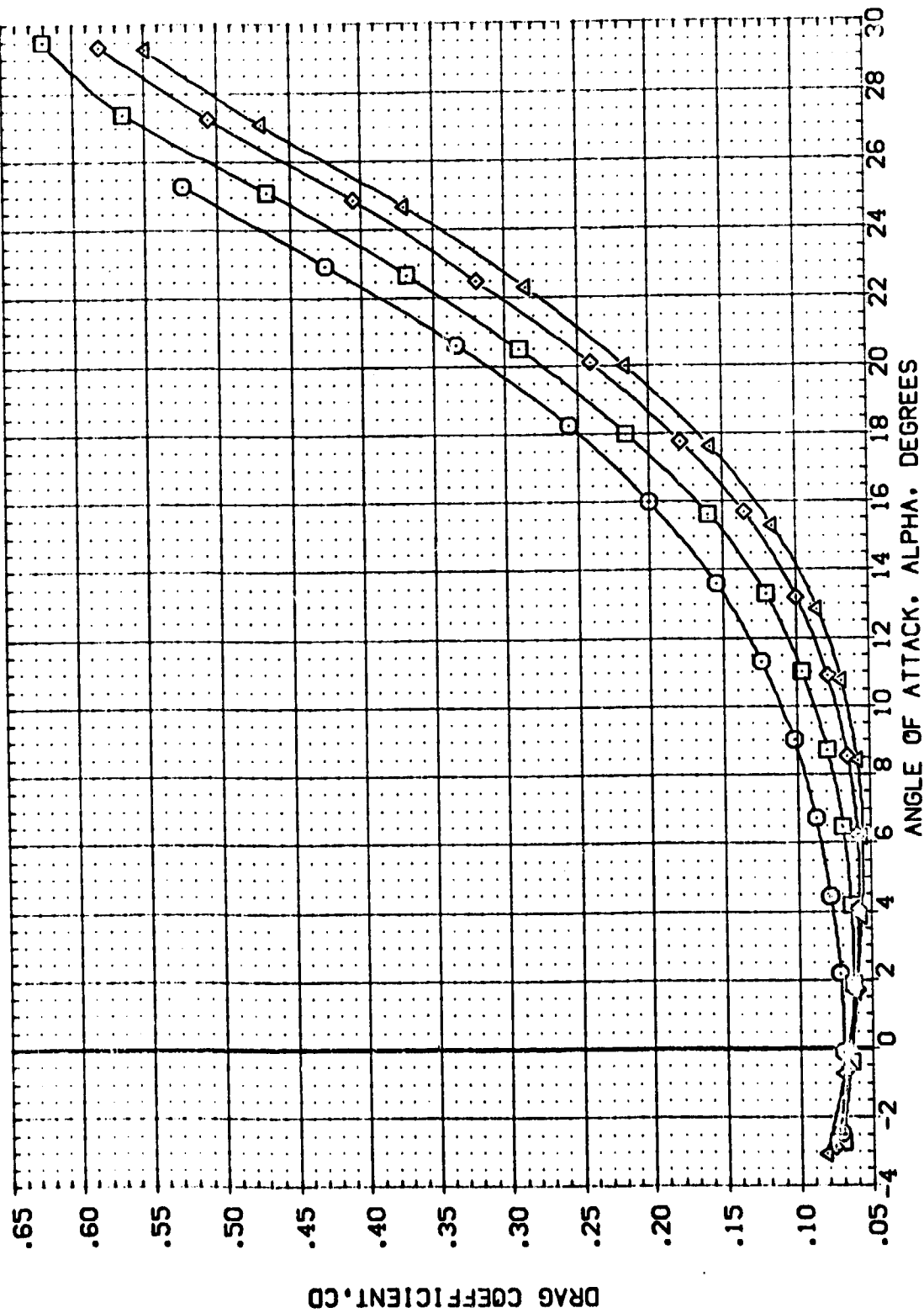


FIGURE 14 1398 ORBITER (MOD NOSE) ELEVON DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPDRBK	R-ODER	REFERENCE INFORMATION
(APP016)	DA17-LTPT138-CR8 3.(B21C7FSM4)(V107E23)(VTRS)	5.600	-14.250	24.920	.000	SREF 87.1560 SO.IN.
(APP008)	DA17-LTPT138-CR8 3.(B21C7FSM4)(V107E23)(VTRS)	.000	-14.250	24.920	.000	LREF 19.3545 INCHES
(APP014)	DA17-LTPT138-CR8 3.(B21C7FSM4)(V107E23)(VTRS)	-5.400	-14.250	24.920	.000	BREF 14.0502 INCHES
(APP015)	DA17-LTPT138-CR8 3.(B21C7FSM4)(V107E23)(VTRS)	-11.600	-14.250	24.920	.000	XREF 12.5770 INCHES
					.000	YREF 6.0000 INCHES
					.000	ZREF 6.0000 INCHES
					.0150	SCALE

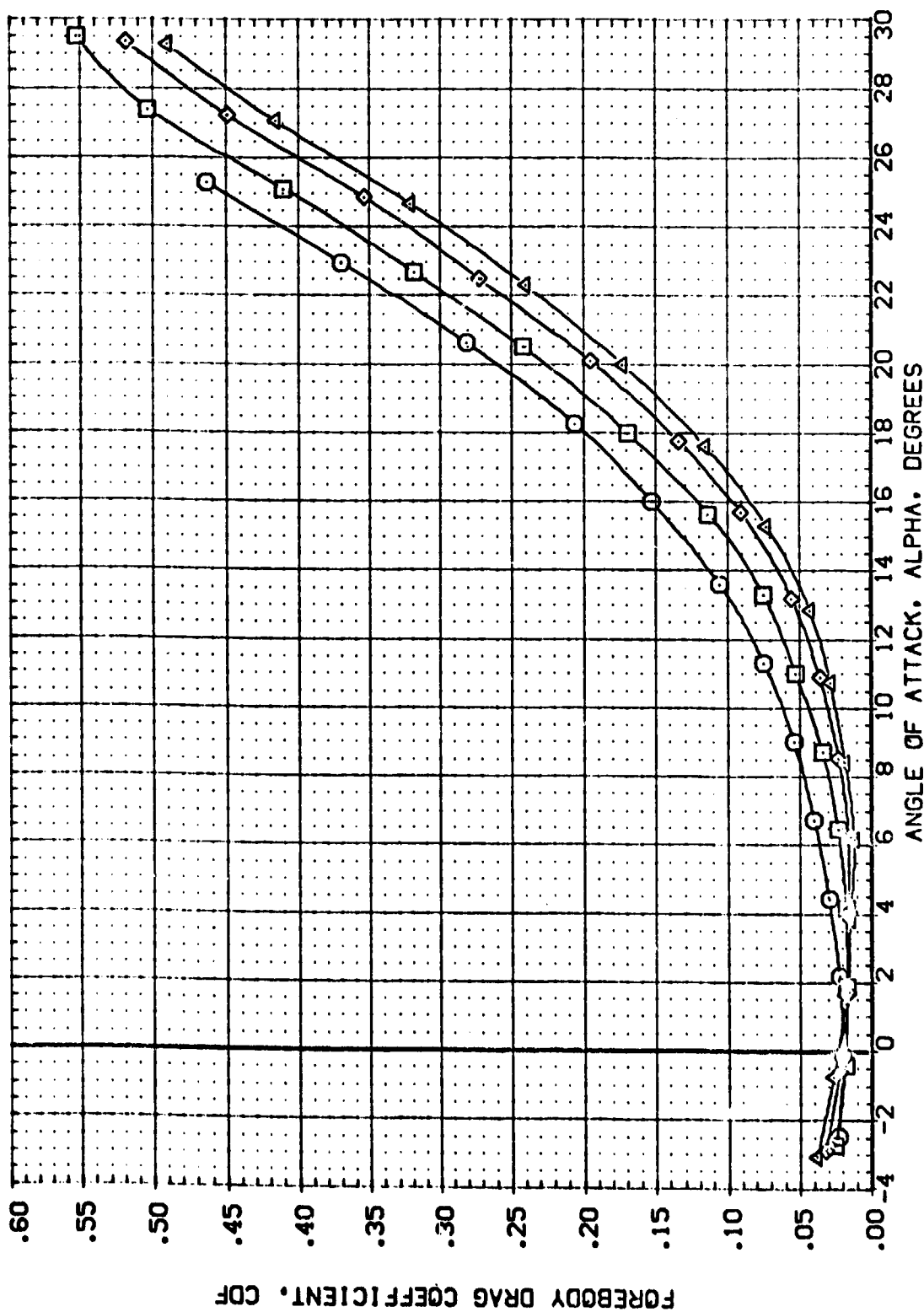


FIGURE 14 139B ORBITER (MOD NOSE) ELEVON DEFLECTION EFFECTS

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APPO:16)	CA17.LTPT138.CR8 3.(B21C7FSM4)(V107E23)(V7RS)	5.600	-14.250	24.920	.000	SREF 87.1560 SQ.IN.
(APPO:13)	CA17.LTPT138.CR8 3.(B21C7FSM4)(V107E23)(V7RS)	.000	-14.250	24.920	.000	LREF 9.9545 INCHES
(APPO:14)	CA17.LTPT138.CR8 3.(B21C7FSM4)(V107E23)(V7RS)	-5.400	-14.250	24.920	.000	BREF 4.0322 INCHES
(APPO:15)	CA17.LTPT138.CR8 3.(B21C7FSM4)(V107E23)(V7RS)	-11.600	-14.250	24.920	.000	XREF 12.5770 INCHES
						YREF .0000 INCHES
						ZREF 6.0000 INCHES
						SCALE .0150

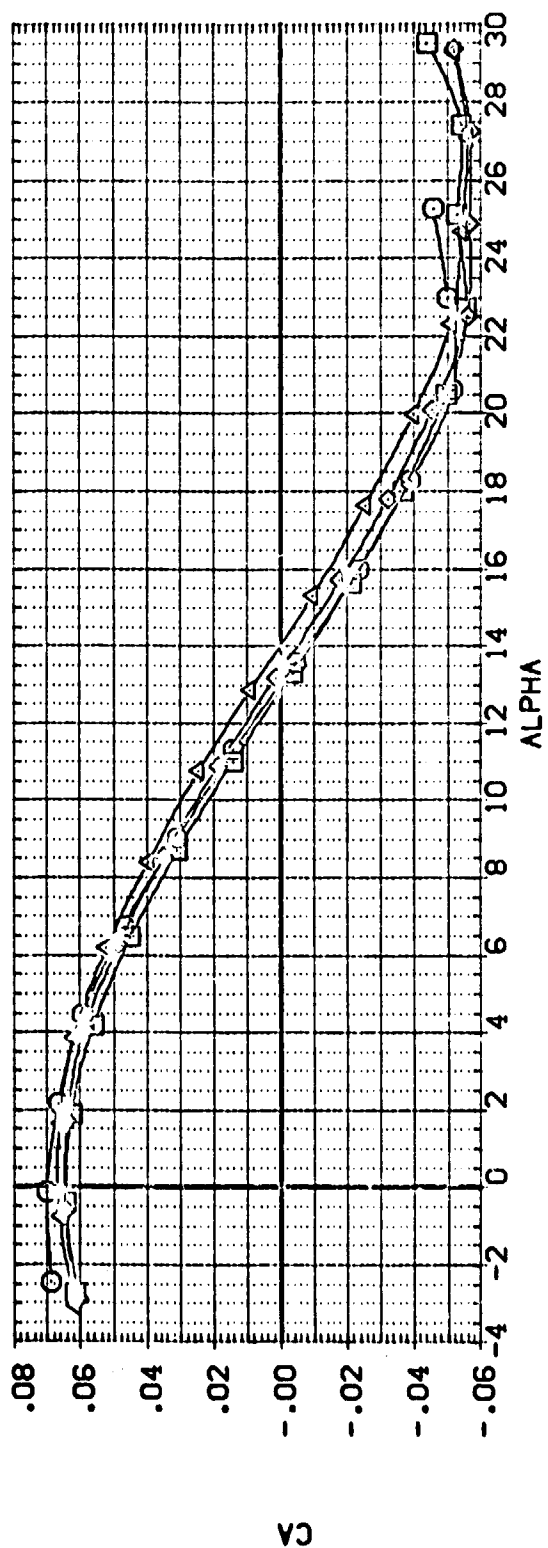
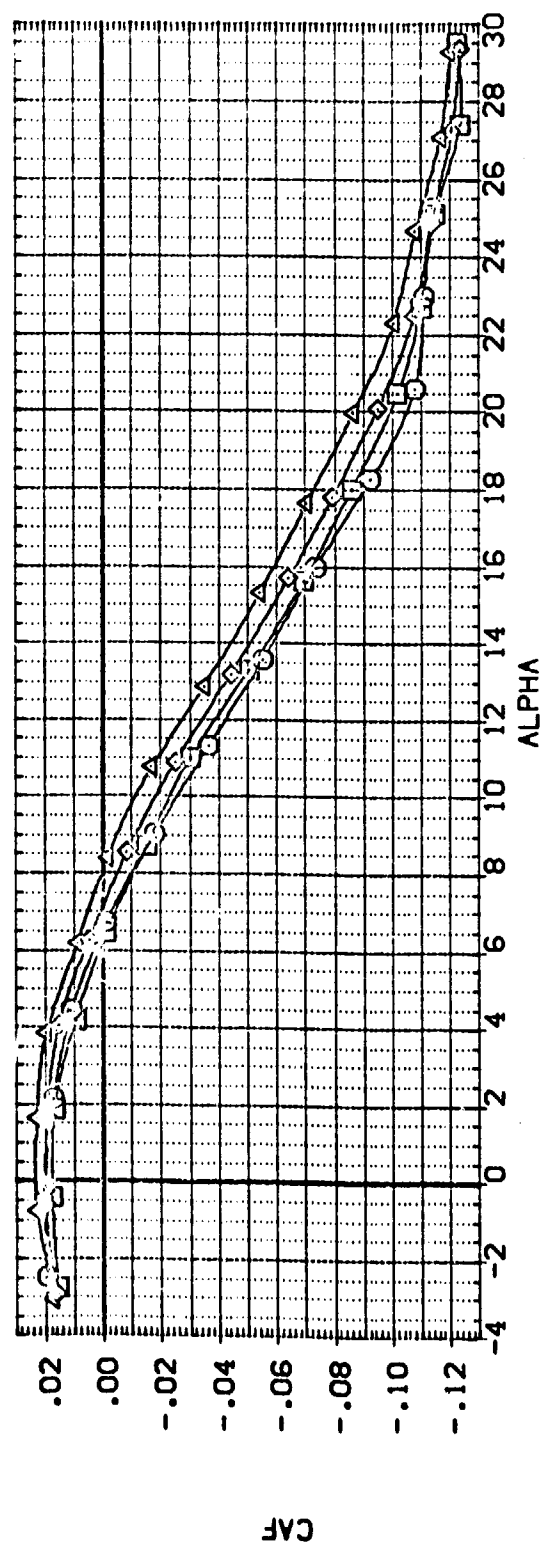


FIGURE 14 139B ORBITER (MOD NOSE) ELEVON DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	SREF	LREF	BREF	XV2P	YV2P	ZV2P	SCALE
(APPC16)	CA17.LTPT138.0RB 3.(B21C7F5M4)(V107E23)(V7R5)	5.600	-14.250	24.920	.000	87.1560	19.3545	14.0502	12.5773	.0000	.0000	.0150
(APPC19)	CA17.LTPT138.0RB 3.(B21C7F5M4)(V107E23)(V7R5)	.000	-14.250	24.920	.000	87.1560	19.3545	14.0502	12.5773	.0000	.0000	.0150
(APPC14)	CA17.LTPT138.0RB 3.(B21C7F5M4)(V107E23)(V7R5)	-5.400	-14.250	24.920	.000	87.1560	19.3545	14.0502	12.5773	.0000	.0000	.0150
(APPC15)	CA17.LTPT138.0RB 3.(B21C7F5M4)(V107E23)(V7R5)	-11.800	-14.250	24.920	.000	87.1560	19.3545	14.0502	12.5773	.0000	.0000	.0150

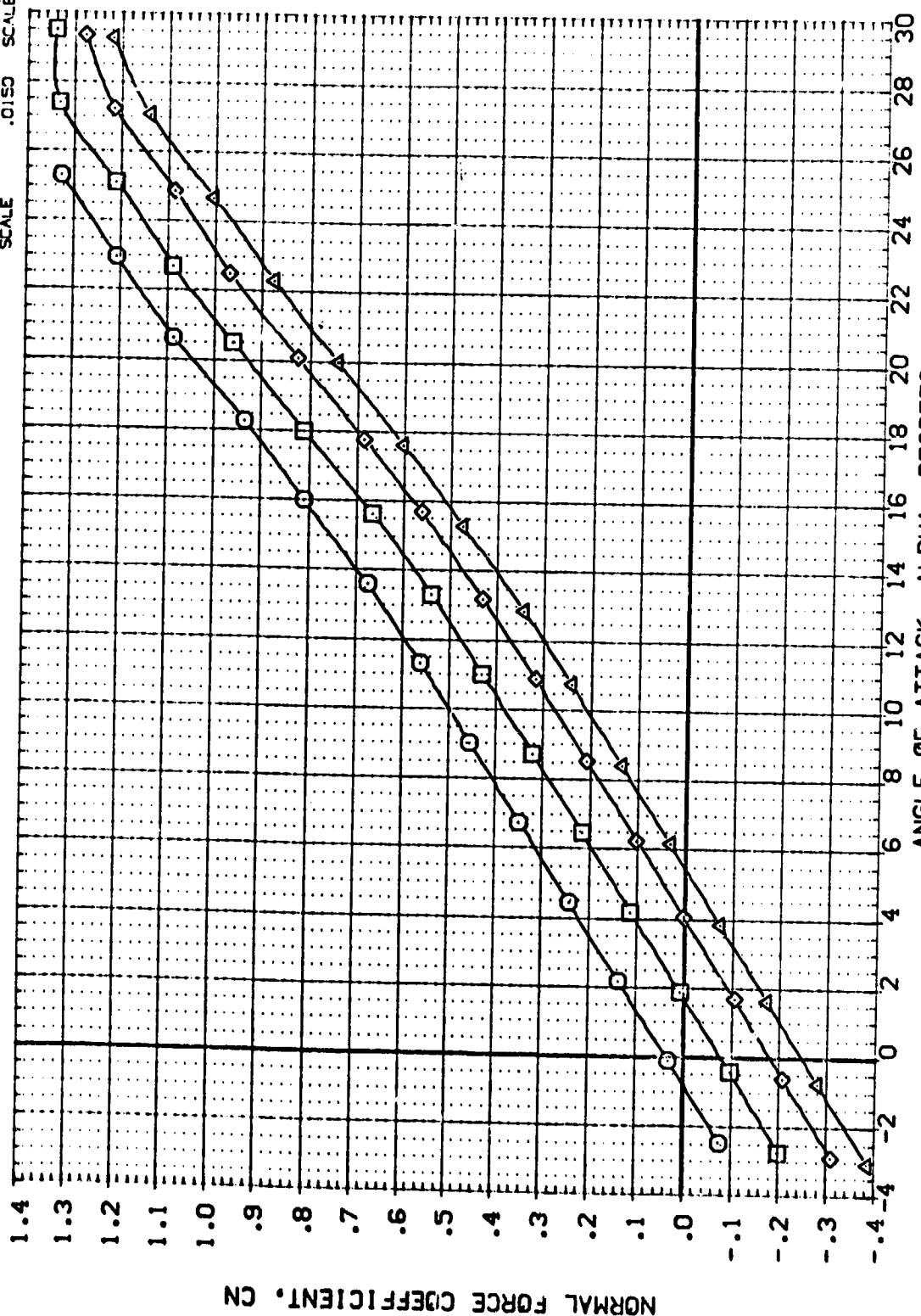


FIGURE 14 139B ORBITER (MOD NOSE) ELEVON DEFLECTION EFFECTS

CAJRN/L = 10.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOELAP	SPOBRK	RLODER	REFERENCE INFORMATION
(APPO16)	CA17.LTPT138.C8 3. (B21C75M4)(V107E23)(V7R5)	5.600	-14.250	24.920	.000	SREF 87.1562 SO.IN.
(APPO15)	CA17.LTPT138.C8 3. (B21C75M4)(V107E23)(V7R5)	.000	-14.250	24.920	.000	LREF 19.3575 INC-ES
(APPO14)	CA17.LTPT138.C8 3. (B21C75M4)(V107E23)(V7R5)	-5.400	-14.250	24.920	.000	BREF 14.5272 INC-ES
(APPO13)	CA17.LTPT138.C8 3. (B21C75M4)(V107E23)(V7R5)	-11.800	-14.250	24.920	.000	YMRP 12.5772 INC-ES
						ZMRP 5.0000 INC-ES
						SCALE .0150 SCALE

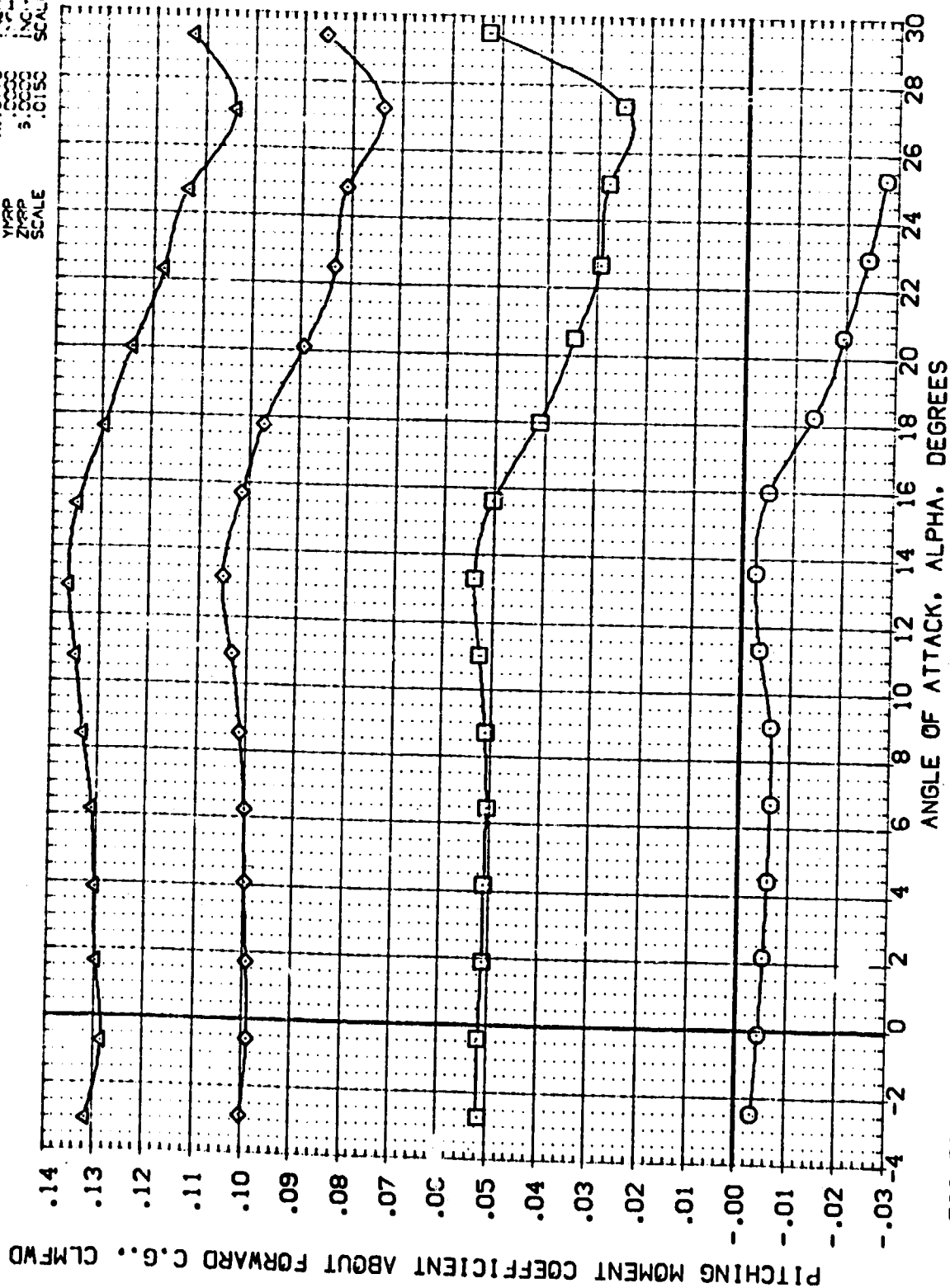


FIGURE 14 139B ORBITER (MOD NOSE) ELEVON DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL: \square \triangle \diamond \square \triangle \diamond

CONFIGURATION DESCRIPTION:
 DA17.LTPT136.CRB 3.(B21C7FSM4)(V107E23)(V7RS)
 DA17.LTPT136.CRB 3.(B21C7FSM4)(V107E23)(V7RS)
 DA17.LTPT136.CRB 3.(B21C7FSM4)(V107E23)(V7RS)
 DA17.LTPT136.CRB 3.(B21C7FSM4)(V107E23)(V7RS)

ELEVTR: 5.600, .000, .000, -5.400, -11.800
 BOFLAP: -14.250, -14.250, -14.250, -14.250, -14.250
 SPOBRK: 24.920, 24.920, 24.920, 24.920, 24.920
 RUDDER: .000, .000, .000, .000, .000

REFERENCE INFORMATION:
 SREF: 87.1563, 19.3545, 14.0000, 12.5770, 6.0000, 6.0150
 LREF: 50. IN, INCHES, INCHES, INCHES, INCHES, SCALE

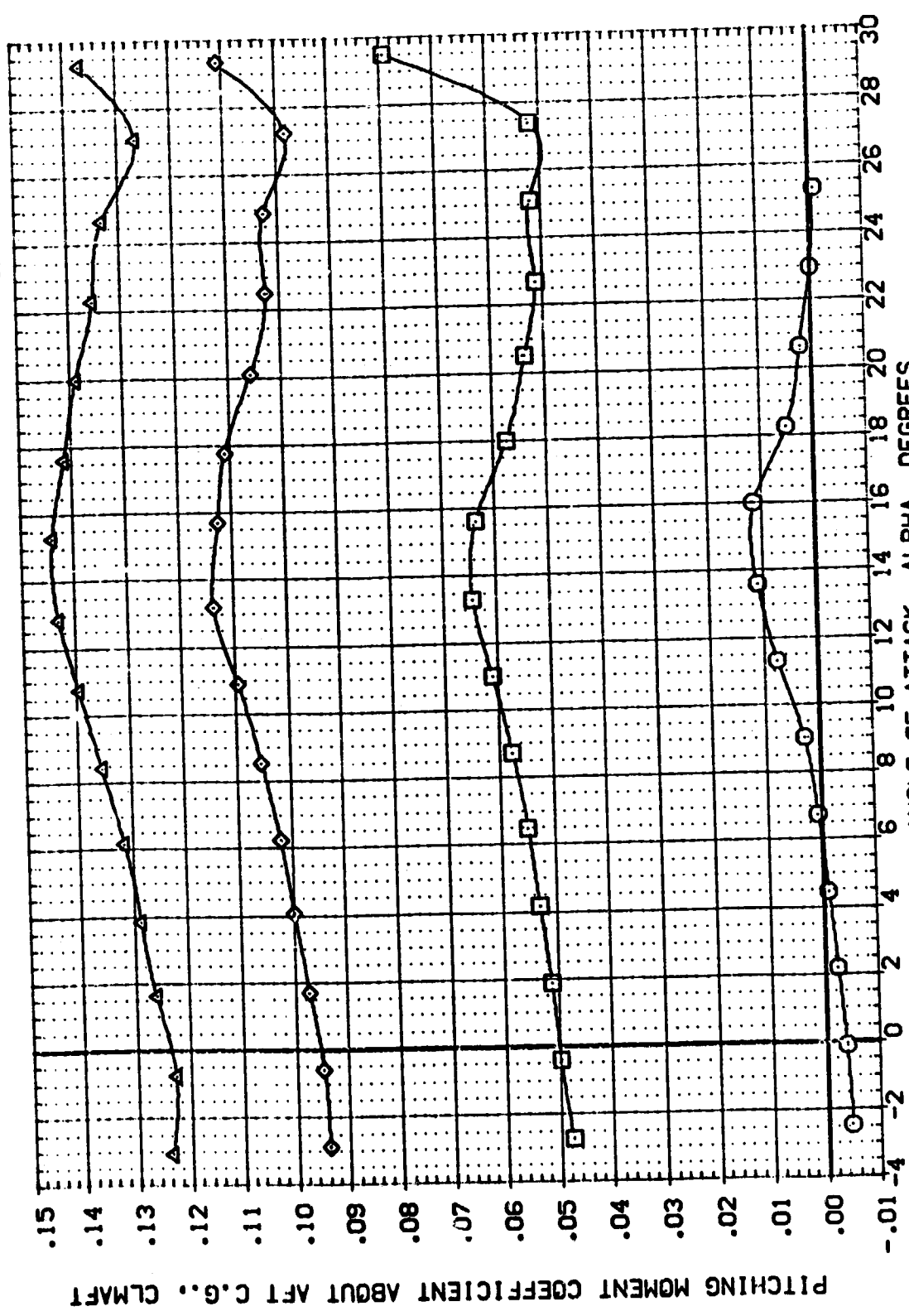


FIGURE 14 1398 ORBITER (MOD NOSE) ELEVON DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(APPO16) CA17.LTPT138.CRB 3.(B21C7FSM)(V107E23)(V7RS)
 (APPO15) CA17.LTPT138.CRB 3.(B21C7FSM)(V107E23)(V7RS)
 (APPO14) CA17.LTPT138.CRB 3.(B21C7FSM)(V107E23)(V7RS)
 (APPO13) CA17.LTPT138.CRB 3.(B21C7FSM)(V107E23)(V7RS)

ELEVTR BOFLAP SPOBRK RUDDER
 5.600 -14.250 24.920 .000
 .000 -14.250 24.920 .000
 -5.400 -14.250 24.920 .000
 -11.600 -14.250 24.920 .000

REFERENCE INFORMATION
 SREF 87.1560 SO.IN.
 LREF 19.3545 INCHES
 BREF 14.6502 INCHES
 XMRP 12.5773 INCHES
 YMRP 6.0000 INCHES
 ZMRP 6.0150 INCHES
 SCALE

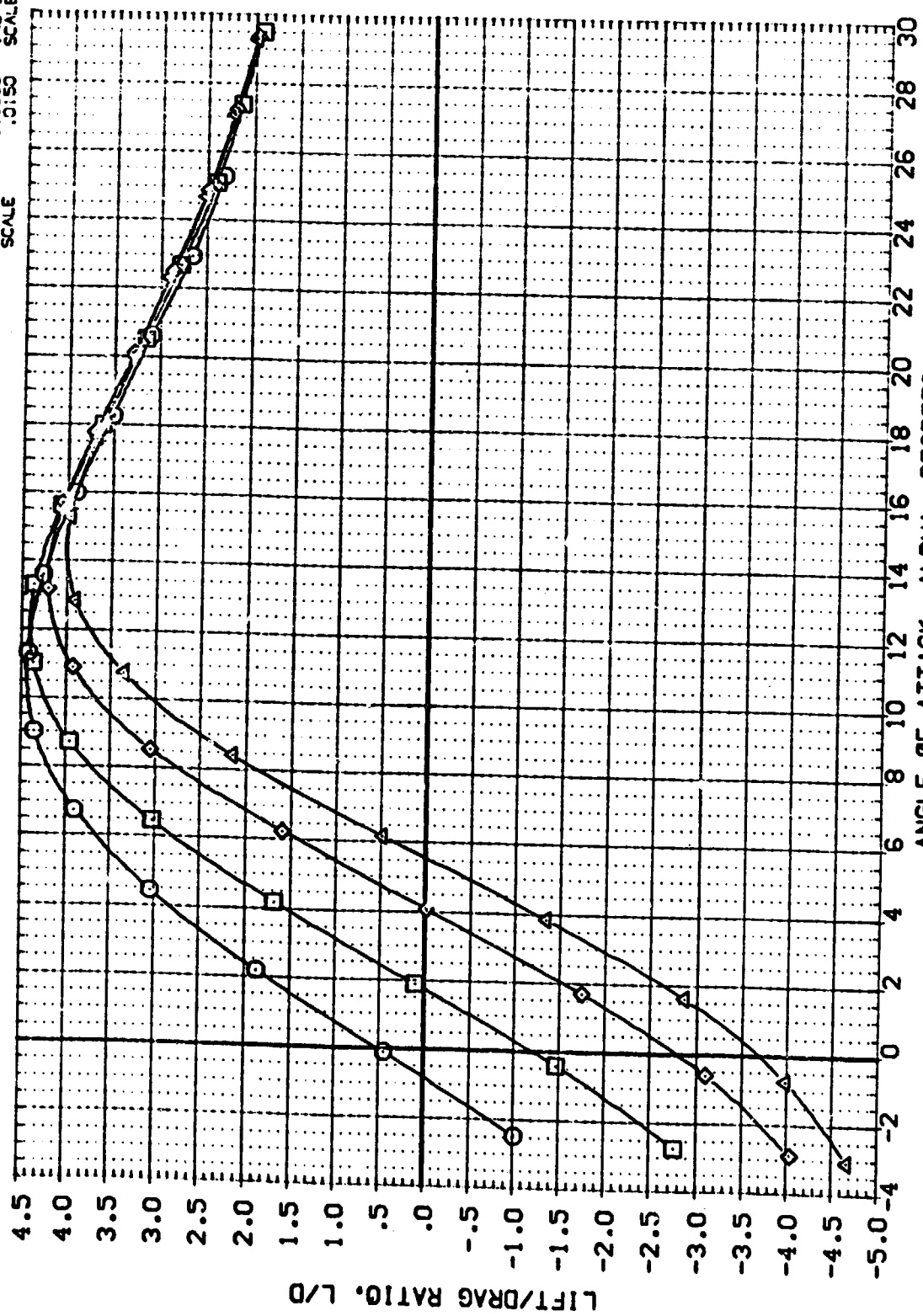


FIGURE 14 139B ORBITER (MOD NOSE) ELEVON DEFLECTION EFFECTS
 (A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APC016)	CA17.LTPT138.C28 3. (B21C7FSM4)(V107E23)(V7RS)	5.600	-14.250	24.920	.000	SREF 87.1550
(APC015)	CA17.LTPT138.C28 3. (B21C7FSM4)(V107E23)(V7RS)	-5.400	-14.250	24.920	.000	LREF 19.3545
(APC014)	CA17.LTPT138.C28 3. (B21C7FSM4)(V107E23)(V7RS)	-11.800	-14.250	24.920	.000	BREF 14.0502
						XMRP 12.5770
						YMRP .0000
						ZMRP 6.0000
						SCALE .0150

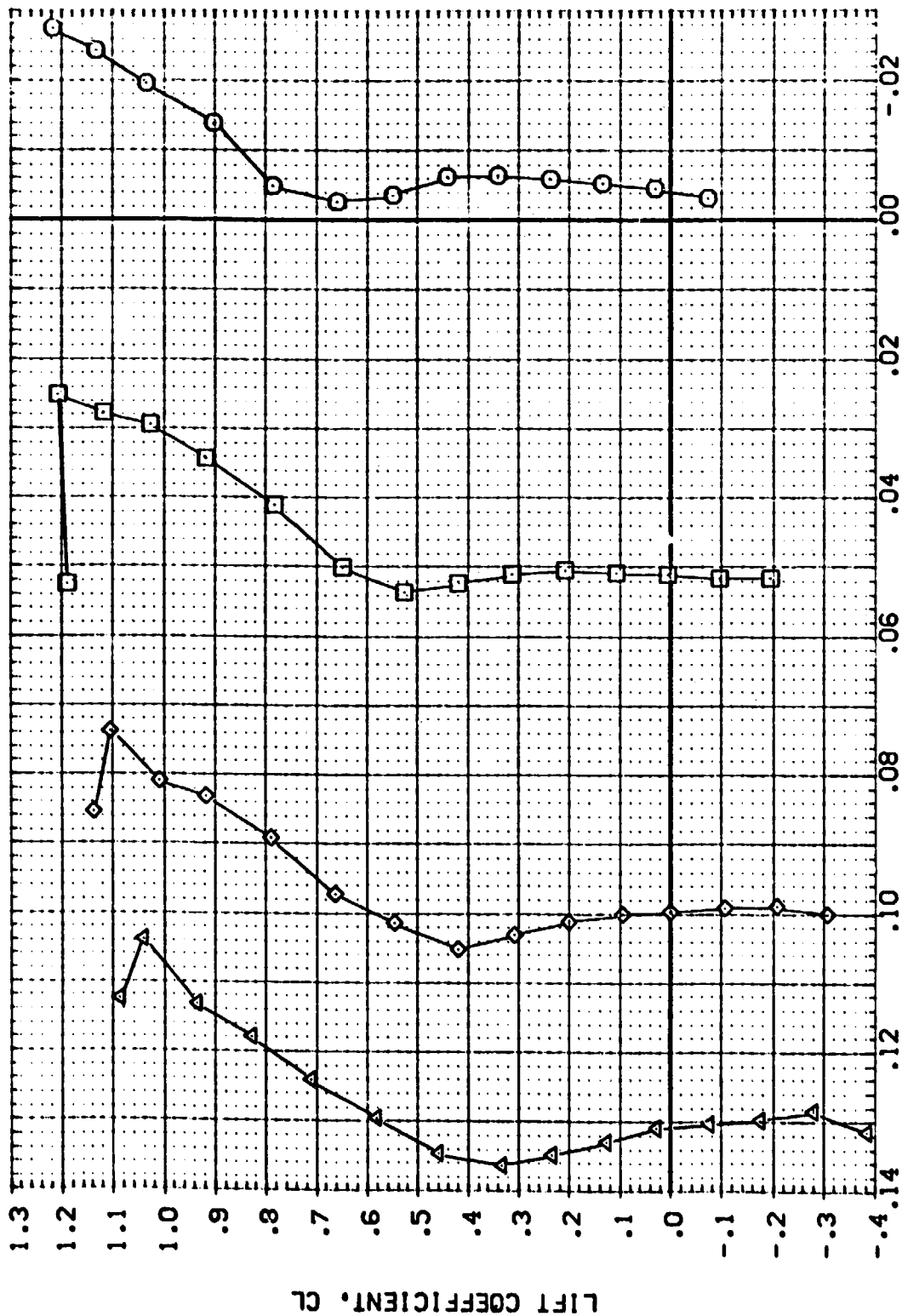


FIGURE 14 139B ORBITER (MOD NOSE) ELEVON DEFLECTION EFFECTS

(A) JRN/L = 10.00

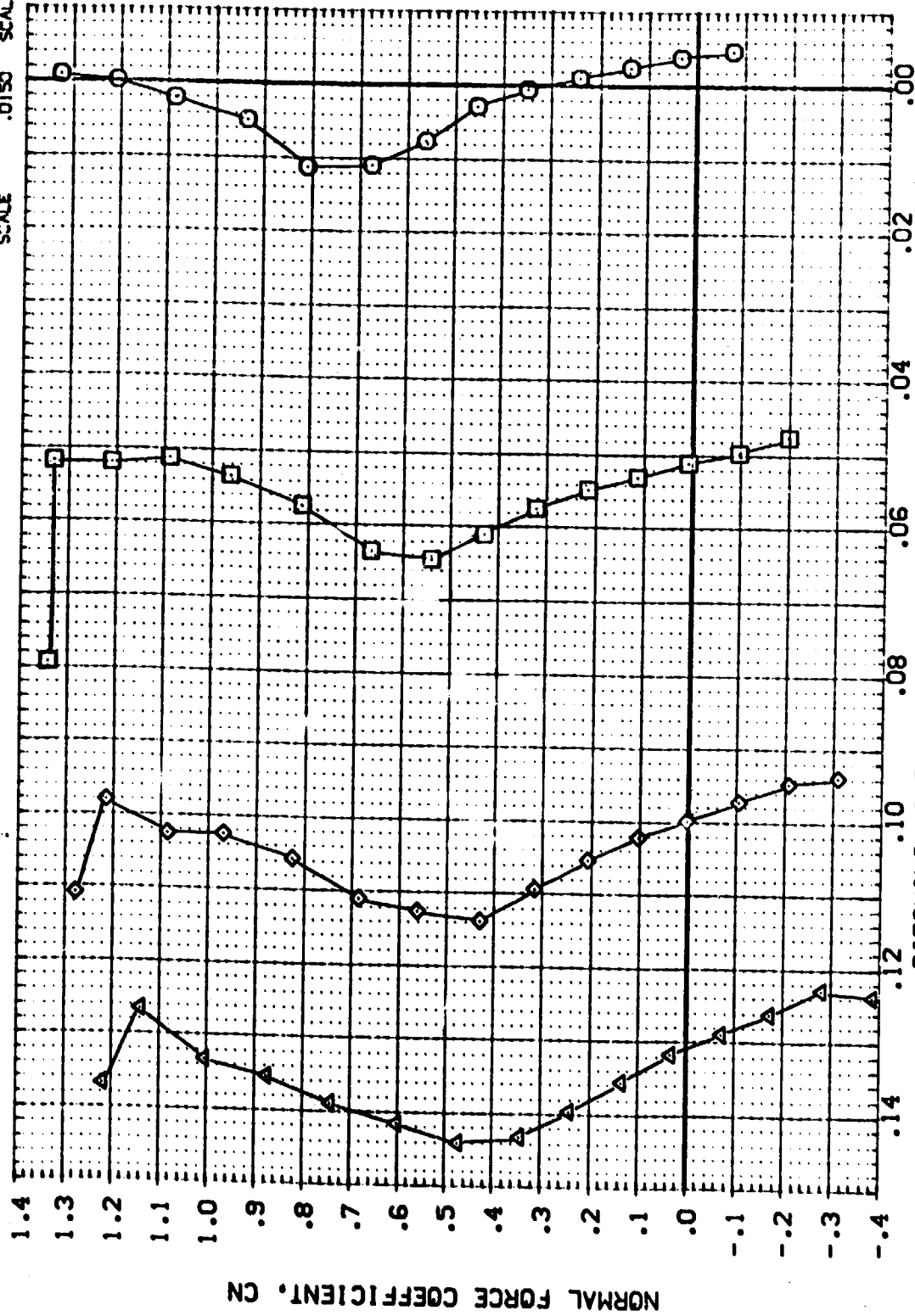
DATA SET SYMBOL

(APPRO16)
(APPRO15)
(APPRO14)
(APPRO13)

CONFIGURATION DESCRIPTION
CA17AL TPT138 ORB 3. (B2IC7F5M4) (V107E23) (V7R5)
CA17AL TPT138 ORB 3. (B2IC7F5M4) (V107E23) (V7R5)
CA17AL TPT138 ORB 3. (B2IC7F5M4) (V107E23) (V7R5)
CA17AL TPT138 ORB 3. (B2IC7F5M4) (V107E23) (V7R5)

ELEVTR BOFLAP SPOBRK RUDDER
5.600 -14.250 24.920 .000
.000 -14.250 24.920 .000
-5.400 -14.250 24.920 .000
-11.600 -14.250 24.920 .000

REFERENCE INFORMATION
SREF 87.1560 50. IN.
LREF 19.3545 INCHES
BREF 14.0502 INCHES
YMRP 12.5770 INCHES
ZMRP 6.0000 INCHES
SCALE .0150



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FIGURE 14 139B ORBITER (MOD NOSE) ELEVON DEFLECTION EFFECTS

(A) RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPDRBK	RUDDER	REFERENCE INFORMATION
[Symbol]	DA17.LTPT138.CRB 3.(B2IC7FS4)(V107E23)(V7RS)	5.600	-14.250	24.920	.000	SREF 87.1560 50 IN.
[Symbol]	DA17.LTPT138.CRB 3.(B2IC7FS4)(V107E23)(V7RS)	.000	-14.250	24.920	.000	LREF 19.3545 INCHES
[Symbol]	DA17.LTPT138.CRB 3.(B2IC7FS4)(V107E23)(V7RS)	-5.400	-14.250	24.920	.000	BREF 14.0502 INCHES
[Symbol]	DA17.LTPT138.CRB 3.(B2IC7FS4)(V107E23)(V7RS)	-11.800	-14.250	24.920	.000	VREF 12.5770 INCHES
						WREF 6.0000 INCHES
						ZREF 6.0000 INCHES
						SCALE .0150

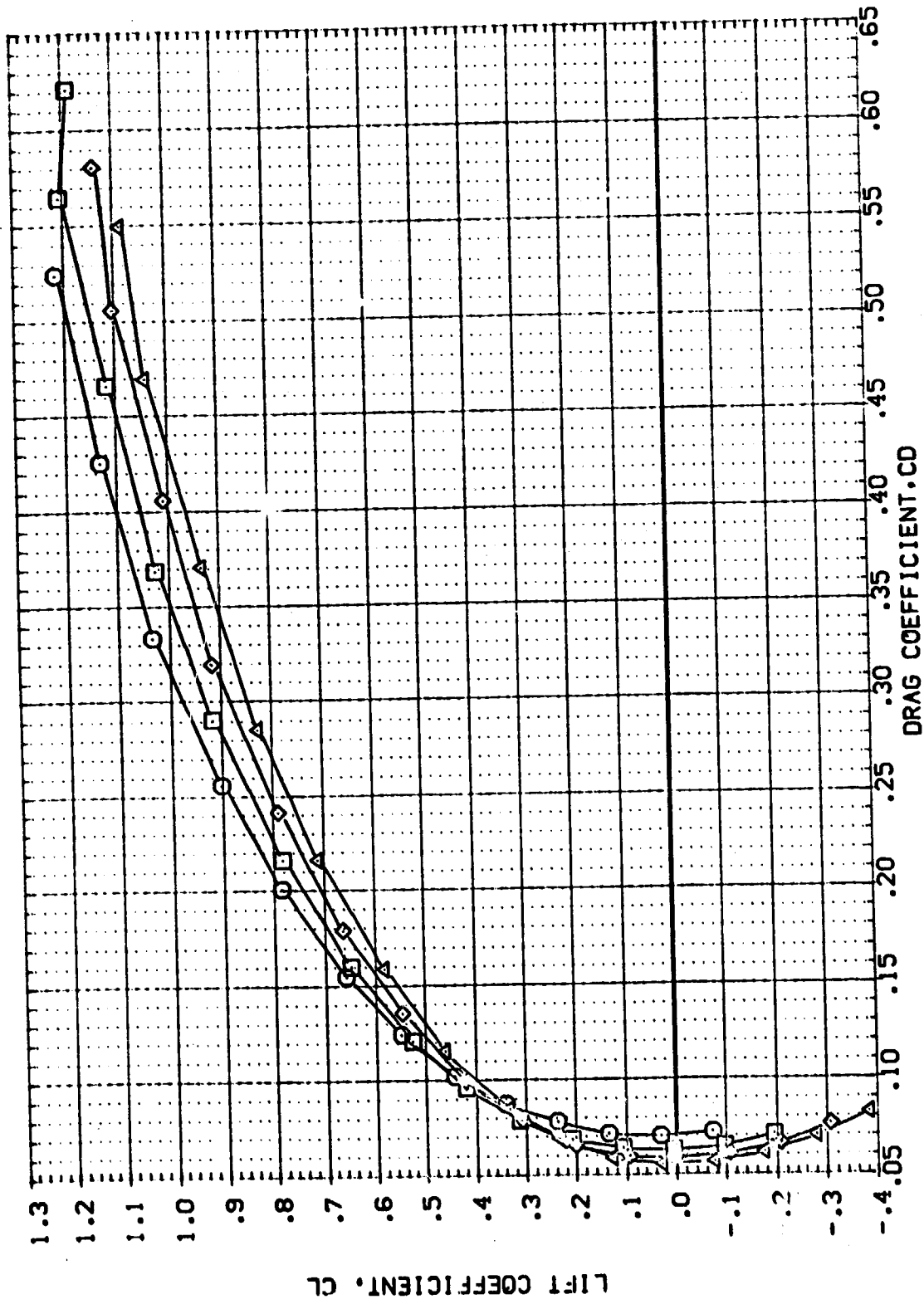


FIGURE 14 139B ORBITER (MOD NOSE) ELEVON DEFLECTION EFFECTS

(AJRN/L = 10.00

DATA SET SYMBOL: CA17.LTPT138.CRB 3. (B21C7F5M4)(V107E23)(V7RS)
 (RPP016)
 (RPP015)
 (RPP014)
 (RPP013)
 (RPP012)
 (RPP011)
 (RPP010)
 (RPP009)
 (RPP008)
 (RPP007)
 (RPP006)
 (RPP005)
 (RPP004)
 (RPP003)
 (RPP002)
 (RPP001)

CONFIGURATION DESCRIPTION
 CA17.LTPT138.CRB 3. (B21C7F5M4)(V107E23)(V7RS)
 CA17.LTPT138.CRB 3. (B21C7F5M4)(V107E23)(V7RS)
 CA17.LTPT138.CRB 3. (B21C7F5M4)(V107E23)(V7RS)
 CA17.LTPT138.CRB 3. (B21C7F5M4)(V107E23)(V7RS)

ELEVTR BOFLAP SPDBRK RUDDER
 5.600 -14.250 24.920 .000
 .000 -14.250 24.920 .000
 -5.400 -14.250 24.920 .000
 -11.600 -14.250 24.920 .000

REFERENCE INFORMATION
 SREF 87.1560 SQ.IN.
 LREF 19.3545 IN.-ES
 BREF 14.0722 IN.-ES
 XREF 12.5775 IN.-ES
 YREF 6.0000 IN.-ES
 ZREF 6.0000 IN.-ES
 SCALE .0150

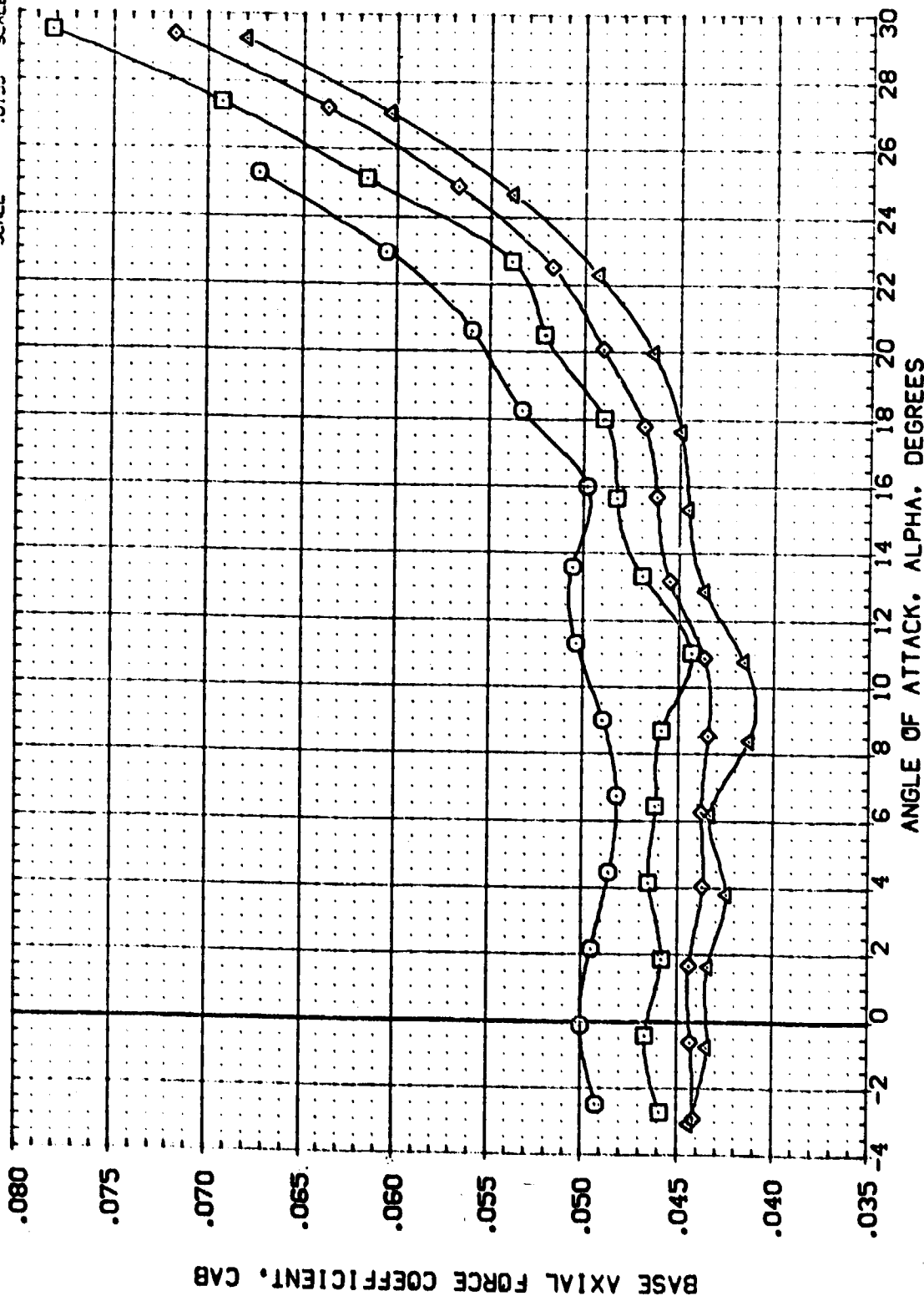


FIGURE 14 1398 ORBITER (MOD N05E) ELEVON DEFLECTION EFFECTS

(A)RN/L = 10.00



DATA SET SYMBOL CONFIGURATION DESCRIPTION DELVON AILRON BOFLAP SPOBRK REFERENCE INFORMATION

Symbol	Configuration Description	DELVON	AILRON	BOFLAP	SPOBRK	REF INFORMATION
(MPC16)	OA17.LTPT138.CRB 3.(B21C7FSM4)(V107E23)(VTRS)	5.600	.000	-14.250	24.920	SREF 87.1560 SQ.IN.
(MPC14)	OA17.LTPT138.CRB 3.(B21C7FSM4)(V107E23)(VTRS)	-5.400	.000	-14.250	24.920	LREF 19.3545 INCHES
(MPC15)	OA17.LTPT138.CRB 3.(B21C7FSM4)(V107E23)(VTRS)	-11.600	.000	-14.250	24.920	BREF 14.0502 INCHES
						XREF 12.5770 INCHES
						YREF .0000 INCHES
						ZREF 6.0000 INCHES
						SCALE .0150

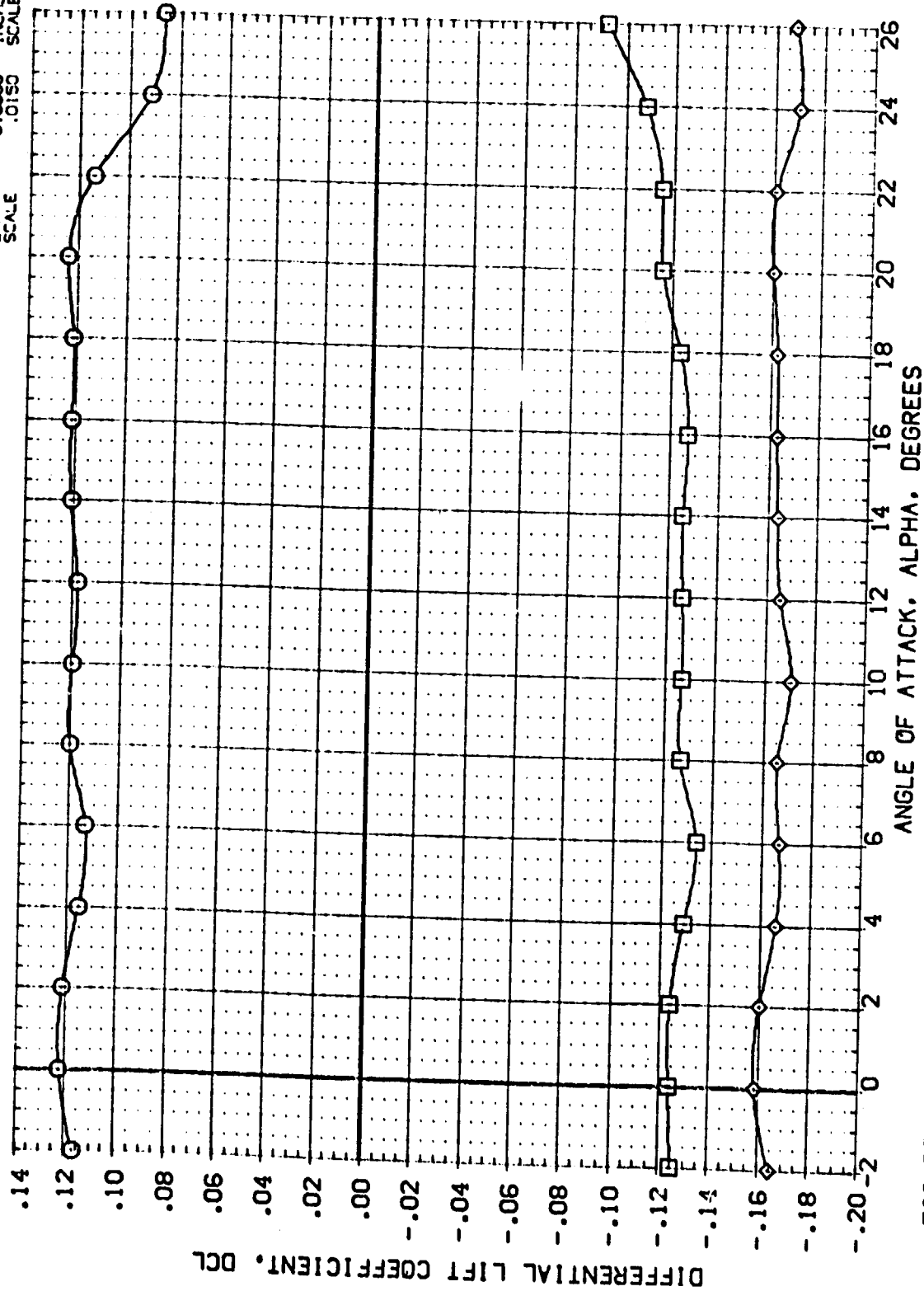


FIGURE 15 1398 ORBITER (MOD NOSE) ELEVON DEFLECTION INCREMENTAL EFFECTS

(AJRN/VL = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DELTON	AILRON	BOFLAP	SPOBRK	REFERENCE INFORMATION	
(HPP015)	0A17.LTPT138.CRB 3.(B21C7FSM)(V107E23)(V7RS)	5.600	.000	-14.250	24.920	SREF	87.1560 SQ. IN.
(HPP014)	0A17.LTPT138.CRB 3.(B21C7FSM)(V107E23)(V7RS)	-5.400	.000	-14.250	24.920	LREF	19.3545 INCHES
(HPP015)	0A17.LTPT138.CRB 3.(B21C7FSM)(V107E23)(V7RS)	-11.800	.000	-14.250	24.920	BREF	14.0502 INCHES
						YMRP	12.5770 INCHES
						ZMRP	.0000 INCHES
						SCALE	.0150 INCHES

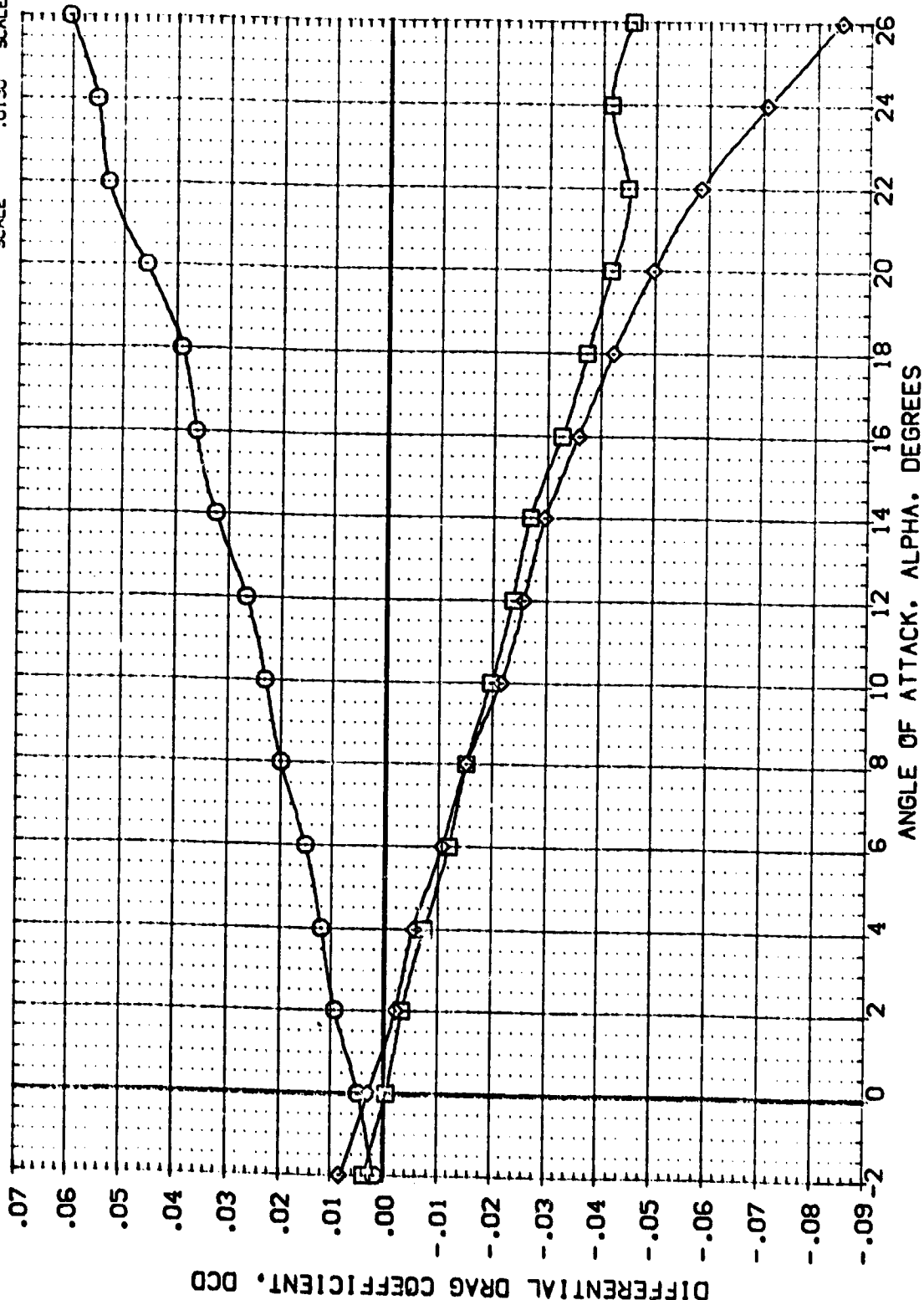


FIGURE 15 139B ORBITER (MOD NOSE) ELEVON DEFLECTION INCREMENTAL EFFECTS

(AJRN/L = 4.70



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DEL VON	AILRON	BOFLAP	SPDBRK	REFERENCE INFORMATION
(-SP016)	CA17.LTPT138.DRB 3.(B21C7FSM)(V107E23)(V7RS)	5.600	.000	-14.250	24.920	SREF 87.1560 50.1N
(-SP014)	CA17.LTPT138.DRB 3.(B21C7FSM)(V107E23)(V7RS)	-5.400	.000	-14.250	24.920	LREF 19.3545 INCHES
(-SP015)	CA17.LTPT138.DRB 3.(B21C7FSM)(V107E23)(V7RS)	-11.800	.000	-14.250	24.920	BREF 14.0502 INCHES
						XMRP 12.5770 INCHES
						YMRP 6.0000 INCHES
						ZMRP 6.0000 INCHES
						SCALE .0150

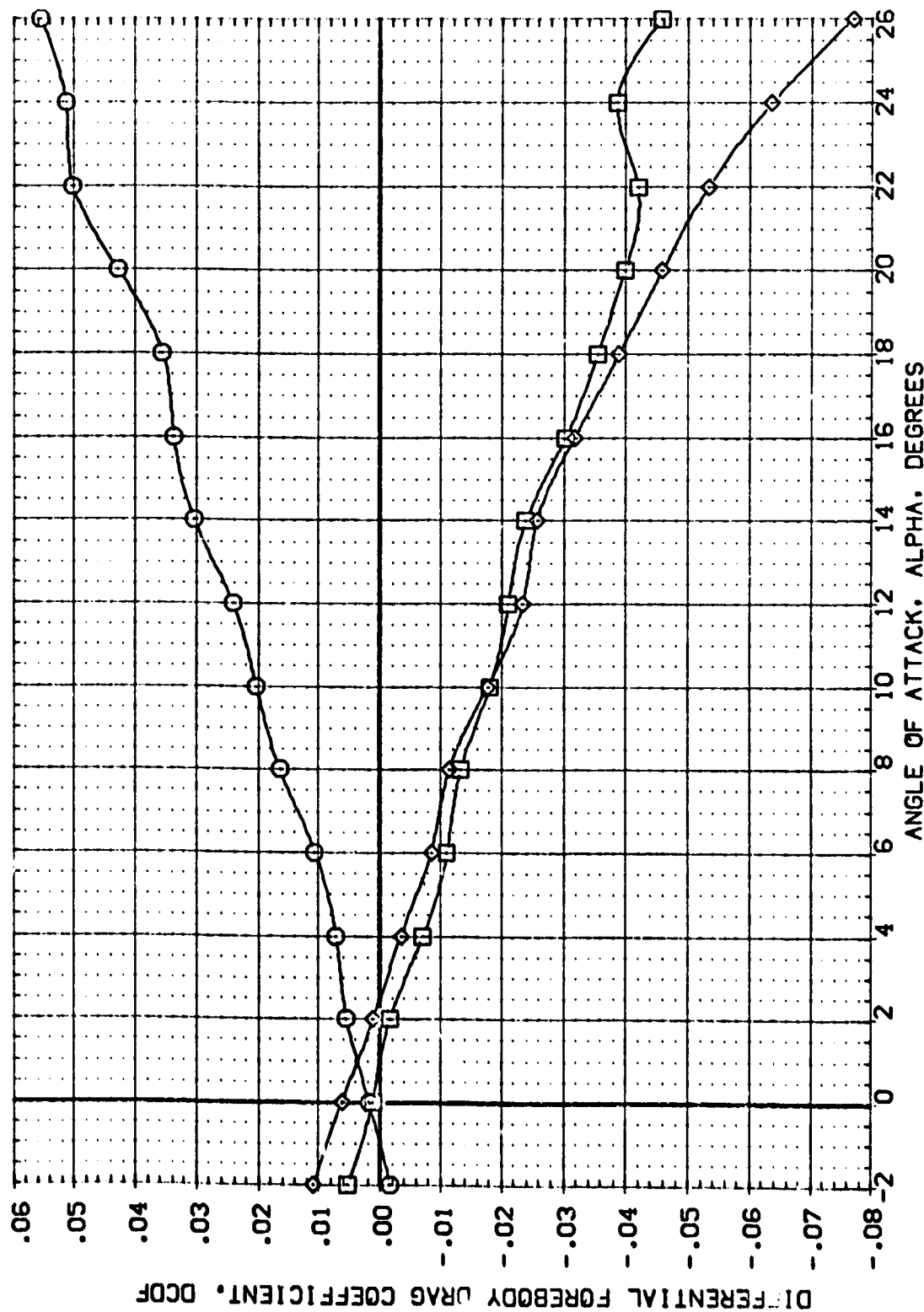


FIGURE 15 139B ORBITER (MOD NOSE) ELEVON DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DELTON	AILRON	BOFLAP	SPDBRK	REFERENCE INFORMATION
(HPC:16)	CA17.LTPT138.0R8 3.(B21C7FSM4)(V107E23)(V7RS)	3.600	.000	-14.250	24.920	SREF 87.1560 SO.IN.
(HPC:14)	CA17.LTPT138.0R8 3.(B21C7FSM4)(V107E23)(V7RS)	-5.400	.000	-14.250	24.920	LREF 19.3545 INCHES
(HPC:15)	CA17.LTPT138.0R8 3.(B21C7FSM4)(V107E23)(V7RS)	-11.800	.000	-14.250	24.920	BREF 14.0502 INCHES
						XGRP 12.5770 INCHES
						YGRP .0000 INCHES
						ZGRP 6.0000 INCHES
						SCALE .0150 SCALE

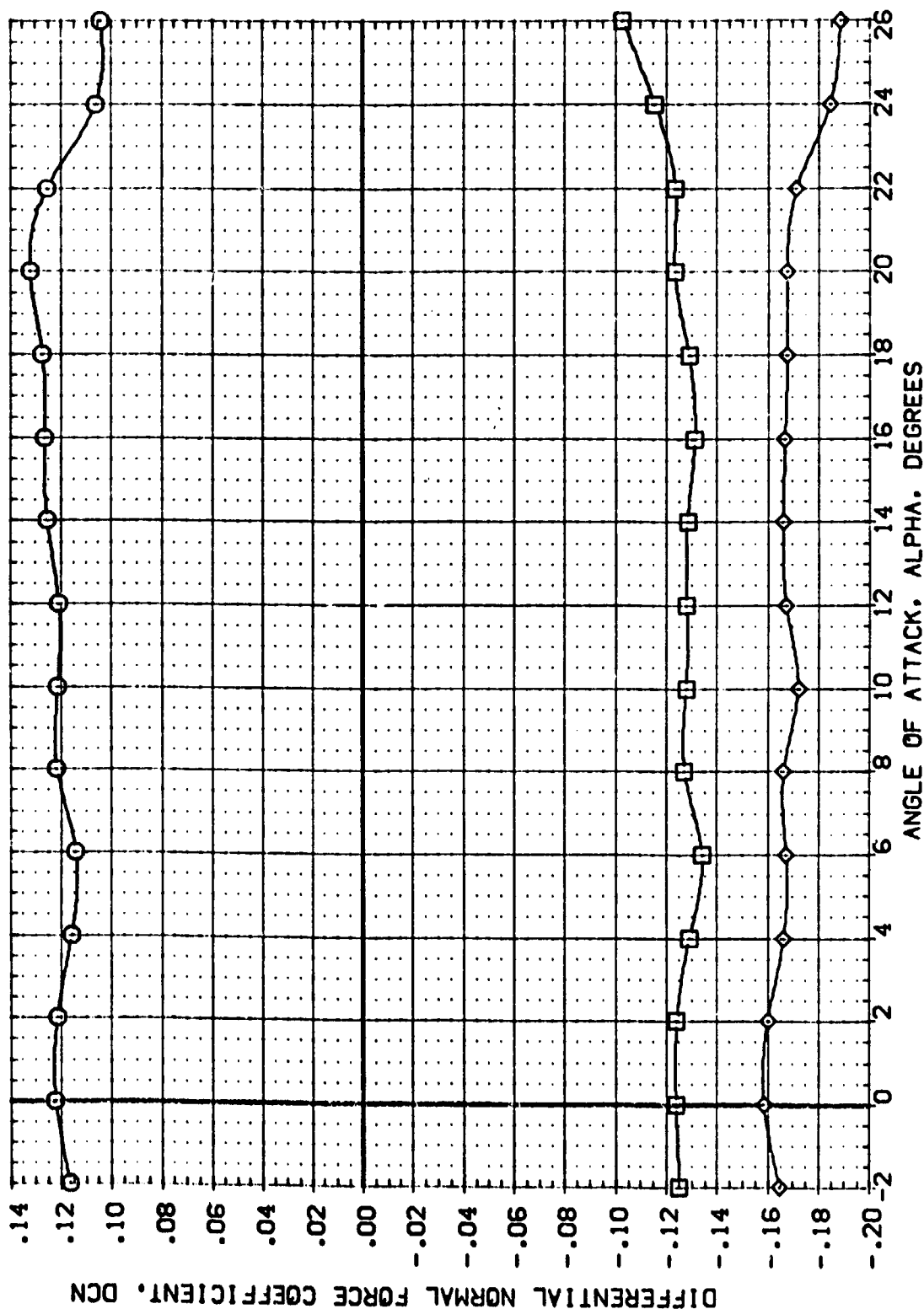


FIGURE 15 1398 ORBITER (MOD NOSE) ELEVON DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 4.70



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DELTON	AIRLON	BDFLAP	SPDRK	REFERENCE INFORMATION
(MPP016)	CA17.LTPT138.C38 3.(B21C7F5M4)(V107E23)(V7R5)	5.600	.000	-14.250	24.920	SREF 87.1560 SO.IN.
(MPP014)	CA17.LTPT138.C38 3.(B21C7F5M4)(V107E23)(V7R5)	-5.400	.000	-14.250	24.920	LREF 19.3545 INCHES
(MPP015)	CA17.LTPT138.C38 3.(B21C7F5M4)(V107E23)(V7R5)	-11.800	.000	-14.250	24.920	SREF 14.0502 INCHES
						YMRP 12.5770 INCHES
						ZMRP .0000 INCHES
						SCALE 6.0000 INCHES
						.0150 INCHES

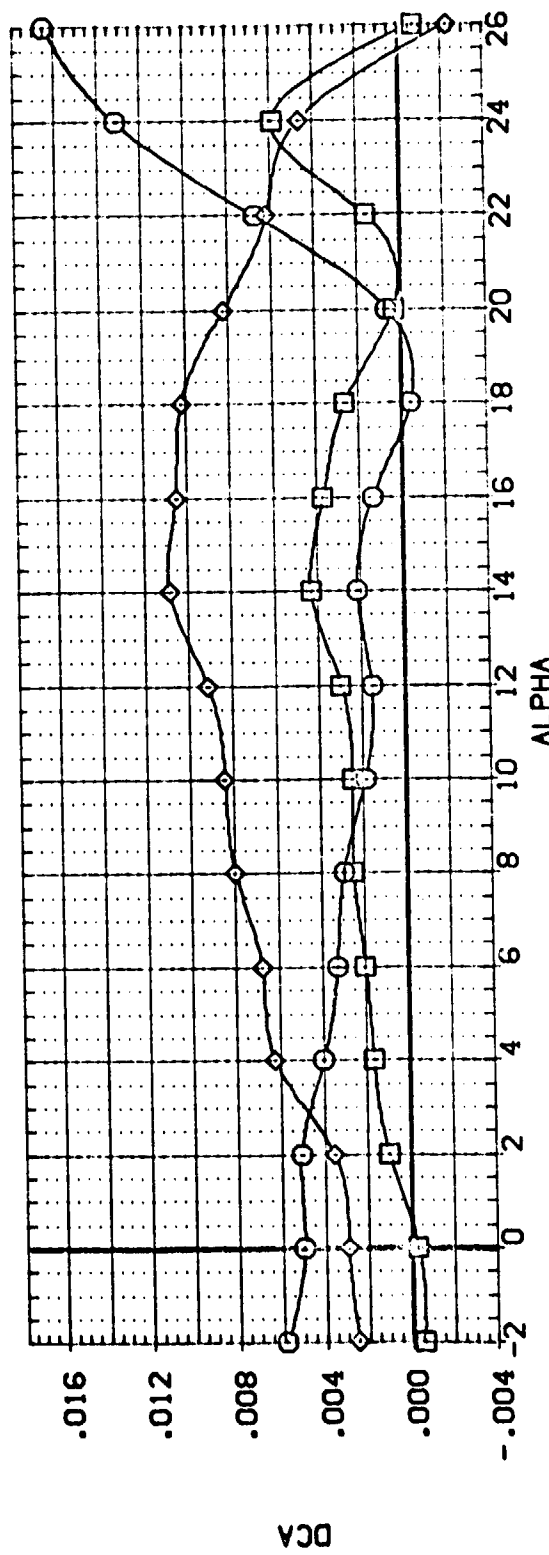
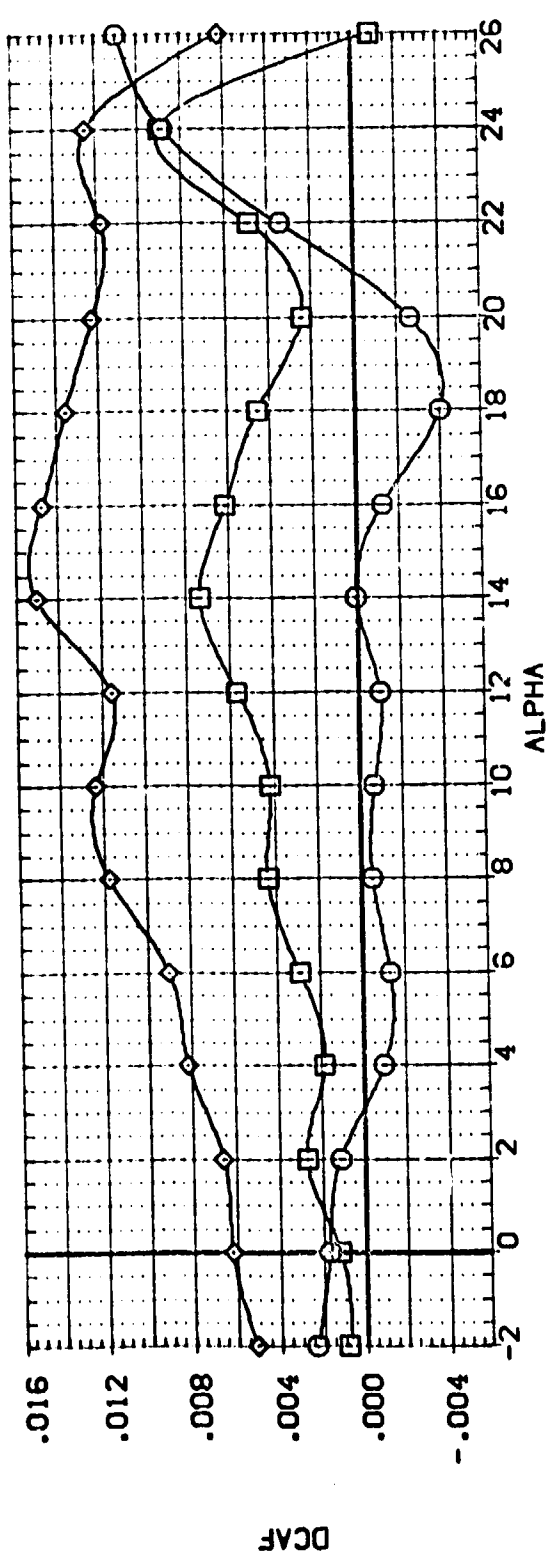


FIGURE 15 139B ORBITER (MOD NOSE) ELEVEN DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DELTON	AIRRN	BOFLAP	SPOBRK	REFERENCE INFORMATION
(HPP016)	CA17.LTPT138.C88 3.(B21C7F5M4)(V107E23)(V7R5)	5.600	.000	-14.250	24.920	SREF 87.1560 SQ.IN.
(HPP014)	CA17.LTPT138.C88 3.(B21C7F5M4)(V107E23)(V7R5)	-5.400	.000	-14.250	24.920	LREF 19.3545 INCHES
(HPP015)	CA17.LTPT138.C88 3.(B21C7F5M4)(V107E23)(V7R5)	-11.800	.000	-14.250	24.920	BREF 14.0502 INCHES
						XMRP 12.5776 INCHES
						YMRP .0000 INCHES
						ZMRP .0000 INCHES
						SCALE .0150

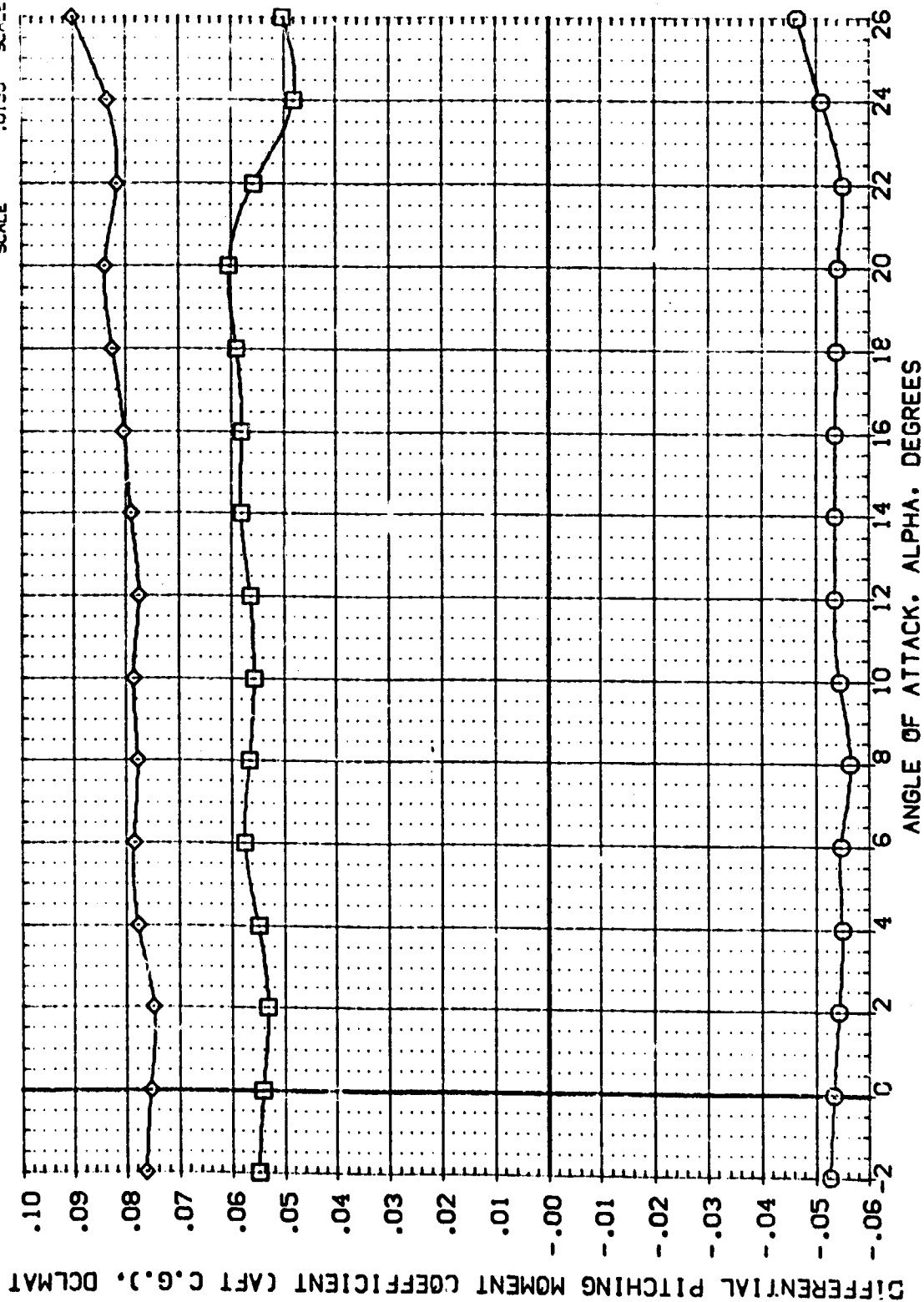


FIGURE 15 139B ORBITER (MOD NOSE) ELEVON DEFLECTION INCREMENTAL EFFECTS

(AIRN/L = 4.70)

DATA SET SYMBOL: (FP016) (FP014) (FP015)

CONFIGURATION DESCRIPTION:
 DA17.LTPT138.CRB 3.(B21C7FSM4)(V107E23)(V7RS)
 DA17.LTPT139.CRB 3.(B21C7FSM4)(V107E23)(V7RS)
 DA17.LTPT138.CRB 3.(B21C7FSM4)(V107E23)(V7RS)

DELTA VON: 5.600
 -5.400
 -11.800

AIRLON: .000
 .000
 .000

BOFLAP: -14.250
 -14.250
 -14.250

SPOBRK: 24.920
 24.920
 24.920

REFERENCE INFORMATION:
 SREF: 87.1560 SO. IN.
 LREF: 19.3545 INCHES
 BREF: 1.0502 INCHES
 XMRP: 12.5770 INCHES
 YMRP: .0000 INCHES
 ZMRP: 6.0000 INCHES
 SCALE: .0150

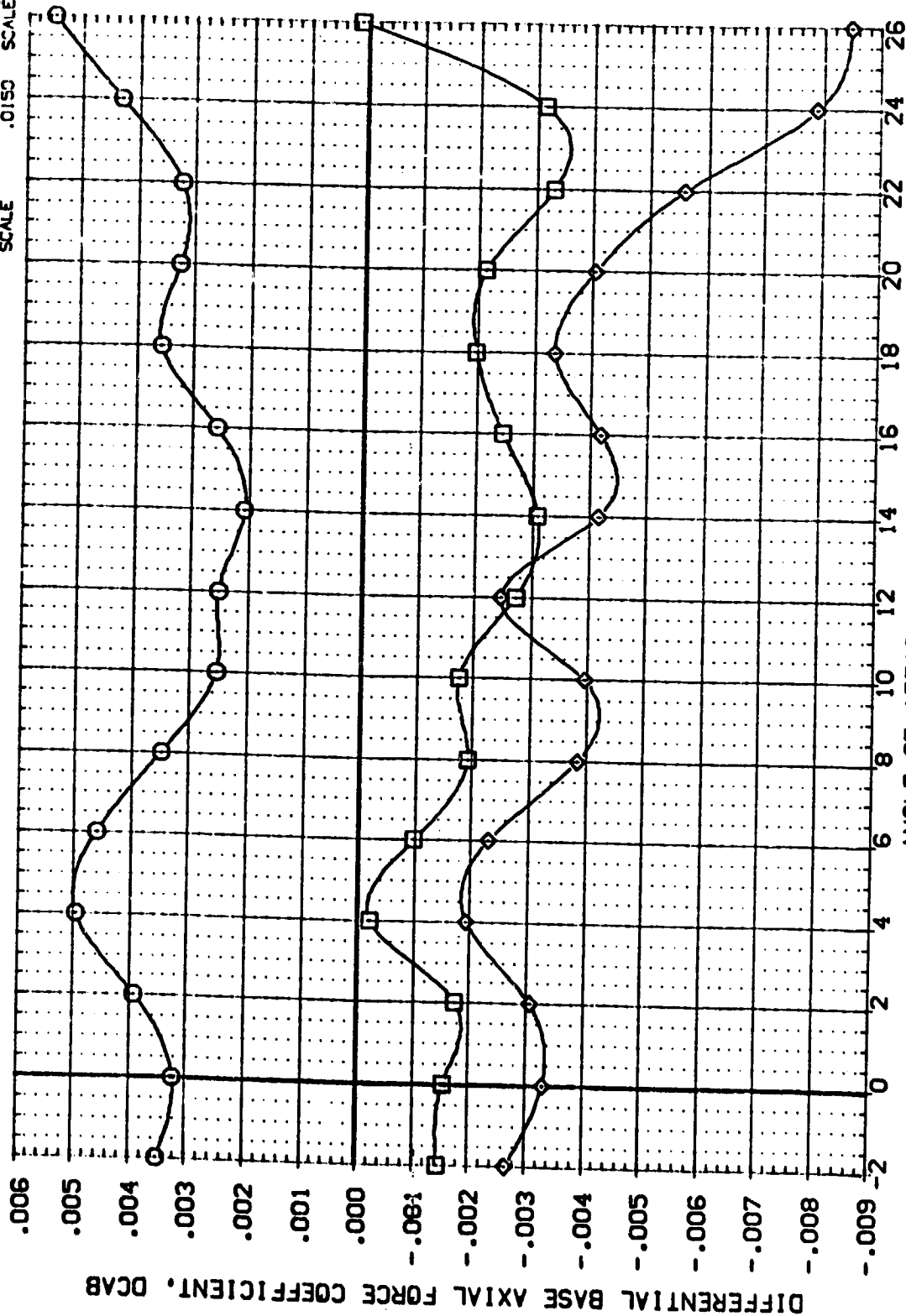


FIGURE 15 1398 ORBITER (MOD NOSE) ELEVON DEFLECTION INCREMENTAL EFFECTS

(AJRN/L = 4.70)

DATA SET SYMB. CONFIGURATION DESCRIPTION

(MPP016) CA17.LTPT138.C98 3.(B21C7FSM4)(V107E23)(VTRS)

(MPP014) CA17.LTPT138.C98 3.(B21C7FSM4)(V107E23)(VTRS)

(MPP015) CA17.LTPT138.C98 3.(B21C7FSM4)(V107E23)(VTRS)

DELTON AILRON BOFLAP SPOBRK

5.600 .000 -14.250 24.920

-5.400 .000 -14.250 24.920

-11.600 .000 -14.250 24.920

REFERENCE INFORMATION

SREF 87.1560 SC IN.

LREF 19.3545 INCHES

BREF 14.0502 INCHES

XMRP 12.5770 INCHES

YMRP .0000 INCHES

ZMRP 6.0000 INCHES

SCALE .0150 SCALE

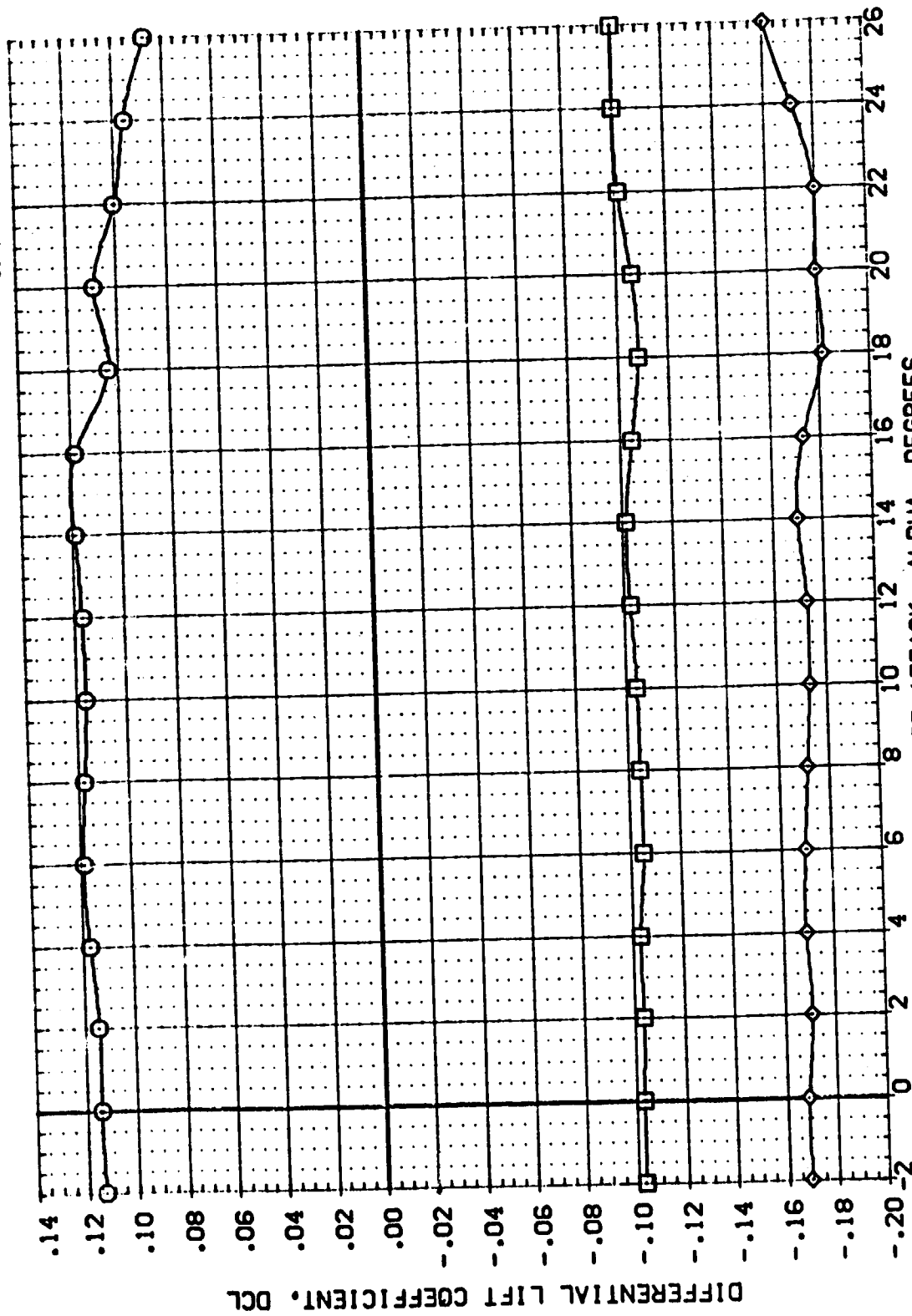


FIGURE 15 139B ORBITER (MOD NOSE) ELEVON DEFLECTION INCREMENTAL EFFECTS

(A) RN/L = 10.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION DEL VON AILRON BOFLAP SPDRK REFERENCE INFORMATION

(APPC16)	DA17.LTPT138.DR8 3.(B21C7F5M4)(V107E23)(V7R5)	5.600	.000	-14.250	24.920	SREF 87.1560 90.1N.
(APPC14)	DA17.LTPT138.DR8 3.(B21C7F5M4)(V107E23)(V7R5)	-5.400	.000	-14.250	24.920	LREF 19.3545 INCHES
(APPC15)	DA17.LTPT138.DR8 3.(B21C7F5M4)(V107E23)(V7R5)	-11.800	.000	-14.250	24.920	BREF 14.0502 INCHES
						XREF 12.5770 INCHES
						YREF 6.0000 INCHES
						ZREF .0150 SCALE

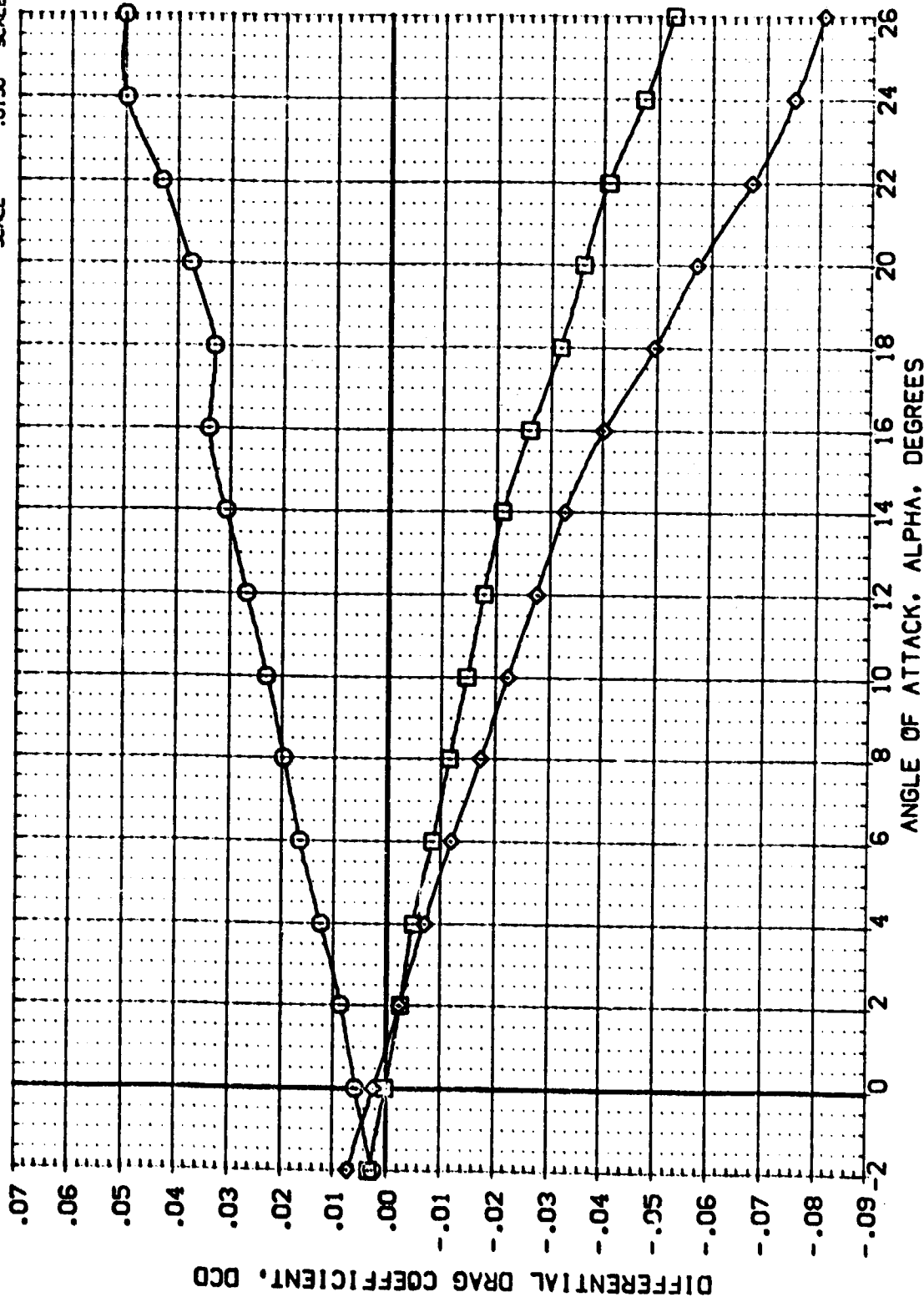


FIGURE 15 139B ORBITER (MOD NOSE) ELEVON DEFLECTION INCREMENTAL EFFECTS

(AJRN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DEL VON	AIRLON	BOELAP	SPOSOR	REFERENCE INFORMATION
(A) 17.138	3. (B2) C7FS4 (V107E23) (V7R)	5.600	.000	-14.250	24.920	SREF 87.1560 SO. IN.
(A) 17.138	3. (B2) C7FS4 (V107E23) (V7R)	-5.400	.000	-14.250	24.920	LREF 19.3545 INCHES
(A) 17.138	3. (B2) C7FS4 (V107E23) (V7R)	-11.800	.000	-14.250	24.920	BREF 14.0502 INCHES
						VREF 12.5770 INCHES
						ZREF 6.0000 INCHES
						SCALE .0150 INCHES

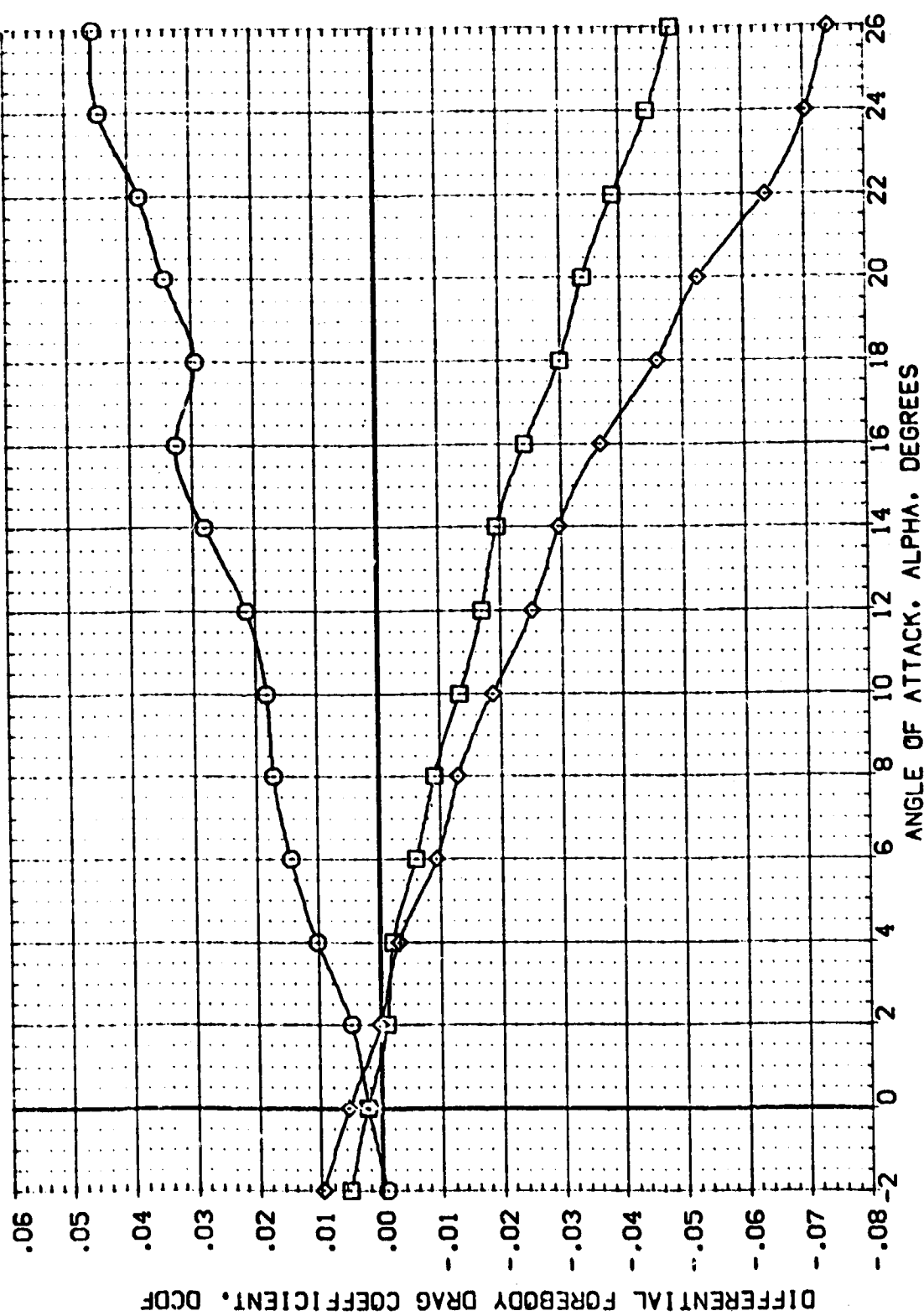


FIGURE 15 1398 ORBITER (MOD NOSE) ELEVON DEFLECTION INCREMENTAL EFFECTS

(A) RN/L = 10.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(HPC16) DA17.LTPT138.CSB 3.(B2IC7F5M)(V107E23)(V7R5)
 (HPC14) DA17.LTPT138.CSB 3.(B2IC7F5M)(V107E23)(V7R5)
 (HPC15) DA17.LTPT138.CSB 3.(B2IC7F5M)(V107E23)(V7R5)

DELTON AIRLON BOFLAP SPOBRK
 5.600 .000 -14.250 24.920
 -5.400 .000 -14.250 24.920
 -11.800 .000 -14.250 24.920

REFERENCE INFORMATION
 SREF 87.1560 SO.IN.
 LREF 19.3545 INCHES
 BREF 14.0502 INCHES
 XREF 12.5776 INCHES
 YREF 6.0000 INCHES
 ZREF 6.0000 INCHES
 SCALE .0150 SCALE

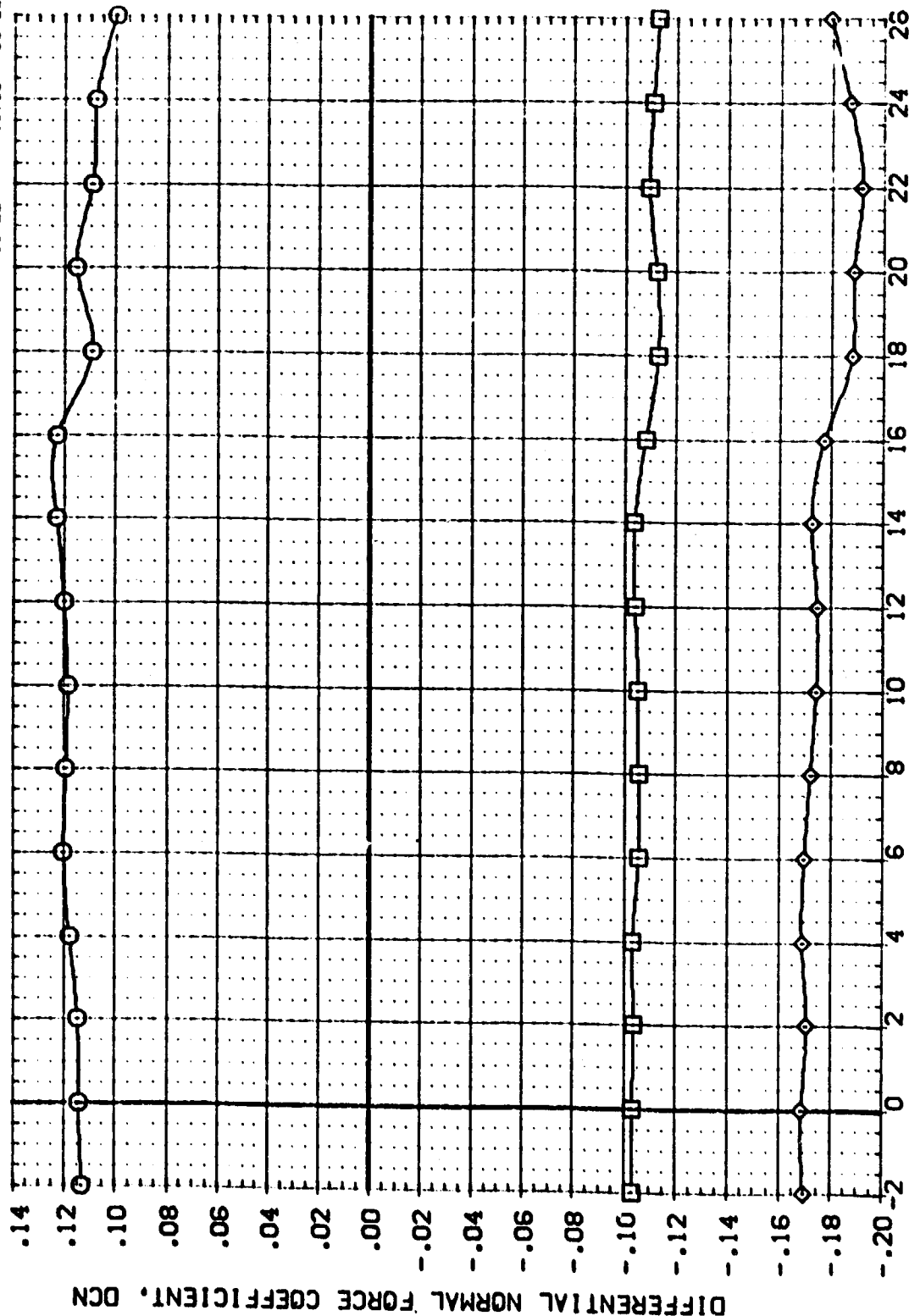


FIGURE 15 139B ORBITER (MOD NOSE) ELEVON DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 10.00



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DELTON	AILRON	BOFLAP	SPOBRK	REFERENCE INFORMATION
(MPP016)	0A17.LTPT138.0R8 3. (821C7F5M4)(V107E23)(V7R5)	5.600	.000	-14.250	24.920	SREF 87.1560 SO.IN.
(MPP014)	0A17.LTPT138.0R8 3. (821C7F5M4)(V107E23)(V7R5)	-5.400	.000	-14.250	24.920	LREF 19.3545 INCHES
(MPP015)	0A17.LTPT138.0R8 3. (821C7F5M4)(V107E23)(V7R5)	-11.800	.000	-14.250	24.920	BREF 14.0502 INCHES
						YMRP 12.5770 INCHES
						ZMRP 6.0000 INCHES
						SCALE .0150

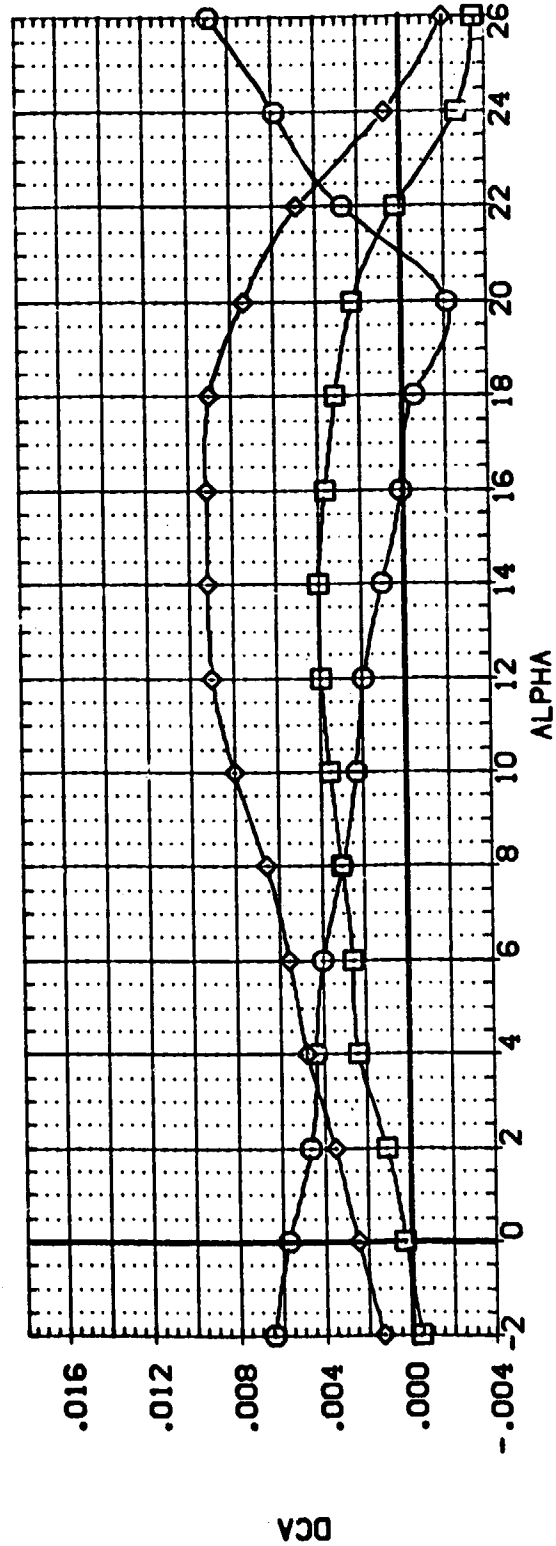
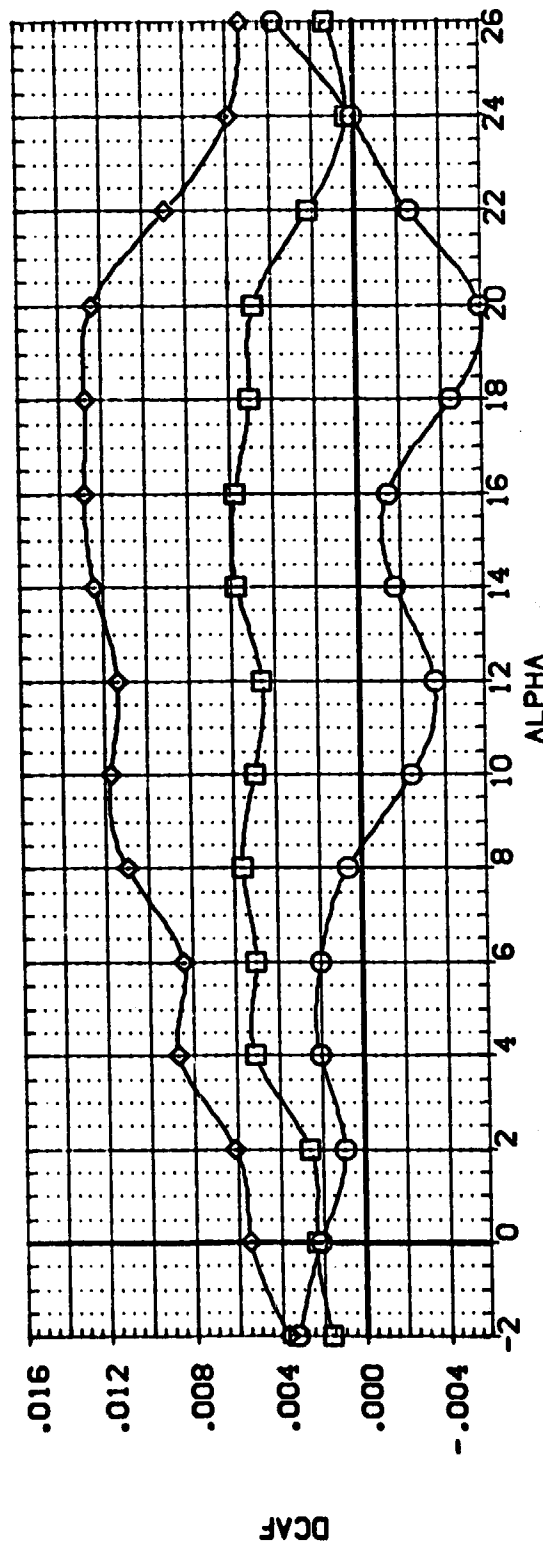


FIGURE 15 139B ORBITER (MOD NOSE) ELEVON DEFLECTION INCREMENTAL EFFECTS

(AJRN/L = 10.00



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DELTON	AIRRN	BOFLAP	SPOBRK	REFERENCE INFORMATION
000000	0A17.LTPT138.CRB 3.(B21CTFS4)(V107E23)(V7RS)	5.600	.000	-14.250	24.920	SREF 87.1560 50.1 IN.
000001	0A17.LTPT138.CRB 3.(B21CTFS4)(V107E23)(V7RS)	-5.400	.000	-14.250	24.920	LREF 19.3545 INCHES
000002	0A17.LTPT138.CRB 3.(B21CTFS4)(V107E23)(V7RS)	-11.800	.000	-14.250	24.920	BREF 14.0502 INCHES
						XREF 12.5770 INCHES
						YREF .0000 INCHES
						ZREF 6.0000 INCHES
						SCALE .0150

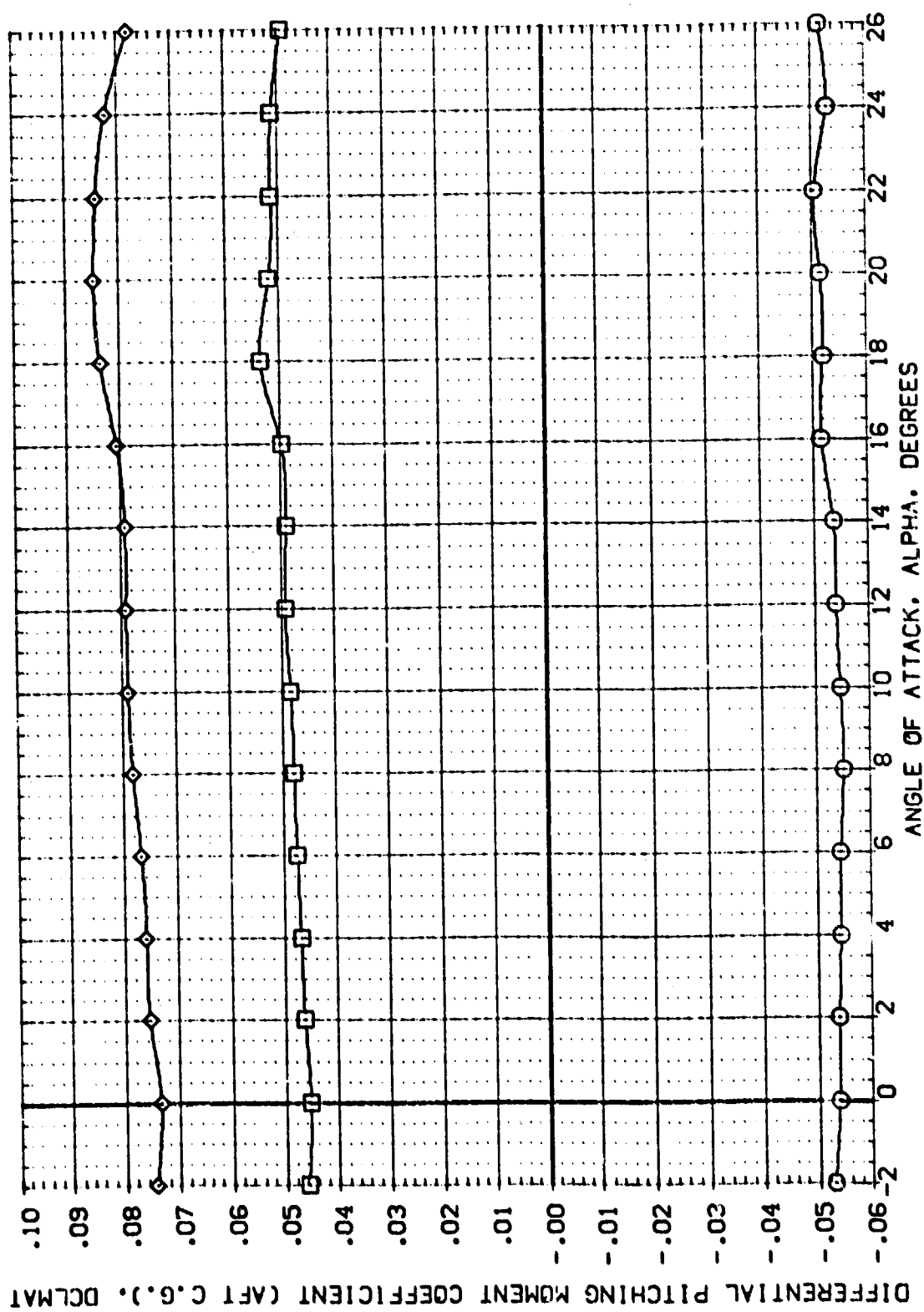


FIGURE 15 139B ORBITER (MOD NOSE) ELEVON DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 10.00

(510663)
 (410663)
 (910663)

CONFIGURATION	DESCRIPTION
CA17.LPT138.CRB	3.(B21C7F5M4).(V107E23).(V7R5)
CA17.LPT138.CRB	3.(B21C7F5M4).(V107E23).(V7R5)
CA17.LPT138.CRB	3.(B21C7F5M4).(V107E23).(V7R5)

DELVON	AIRLON	BOFLAP	SPDBRK
5.600	.000	-14.250	24.920
-5.400	.000	-14.250	24.920
-11.800	.000	-14.250	24.920

REFERENCE INFORMATION	
SREF	87.1560 SQ. IN.
LREF	19.3545 INCHES
WREF	14.0502 INCHES
XMRP	12.5770 INCHES
YMRP	.0000 INCHES
ZMRP	6.0000 INCHES
SCALE	.0150 SCALE

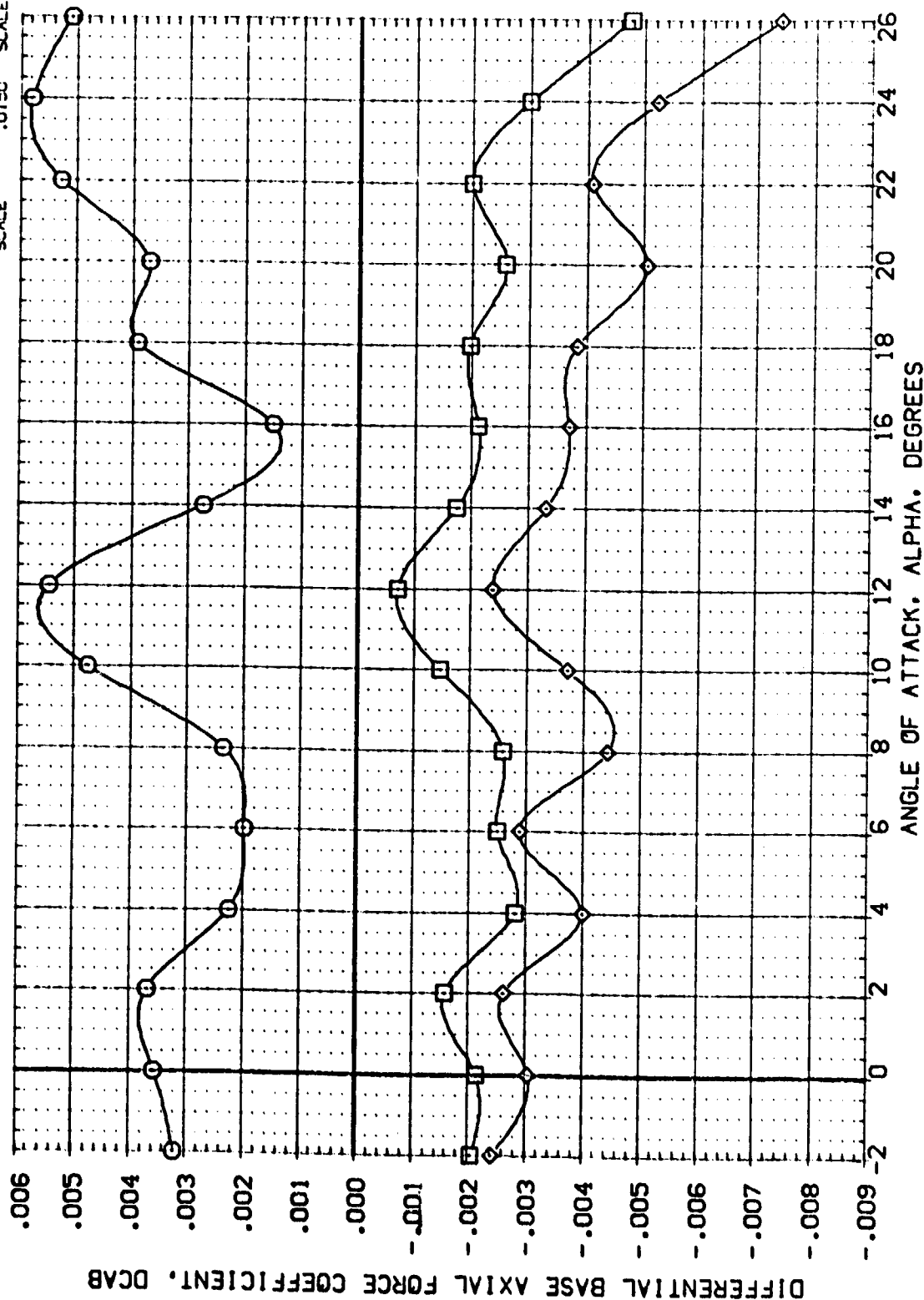


FIGURE 15 139B ORBITER (MOD NOSE) ELEVON DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 10.00

PAGE 292

0A17.LTPT:38.0RB 3.(321C7F5M4)(W107E23)(V7R5) (NPP016)

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	DELTON	DELTON	REFERENCE INFORMATION
○	.000	RVL 4.700	5.600	DELTON	SREF	87.1560
◇	10.000	AILRON .000	-14.250	NPP016	LREF	19.3545
◇	20.000	SPCRK 24.920	.000	NPP014	BREF	14.0502
△	30.000	BETA .000	.000	NPP015	YMRP	12.5770
					ZMRP	.0000
					SCALE	6.0000
					SCALE	.0150

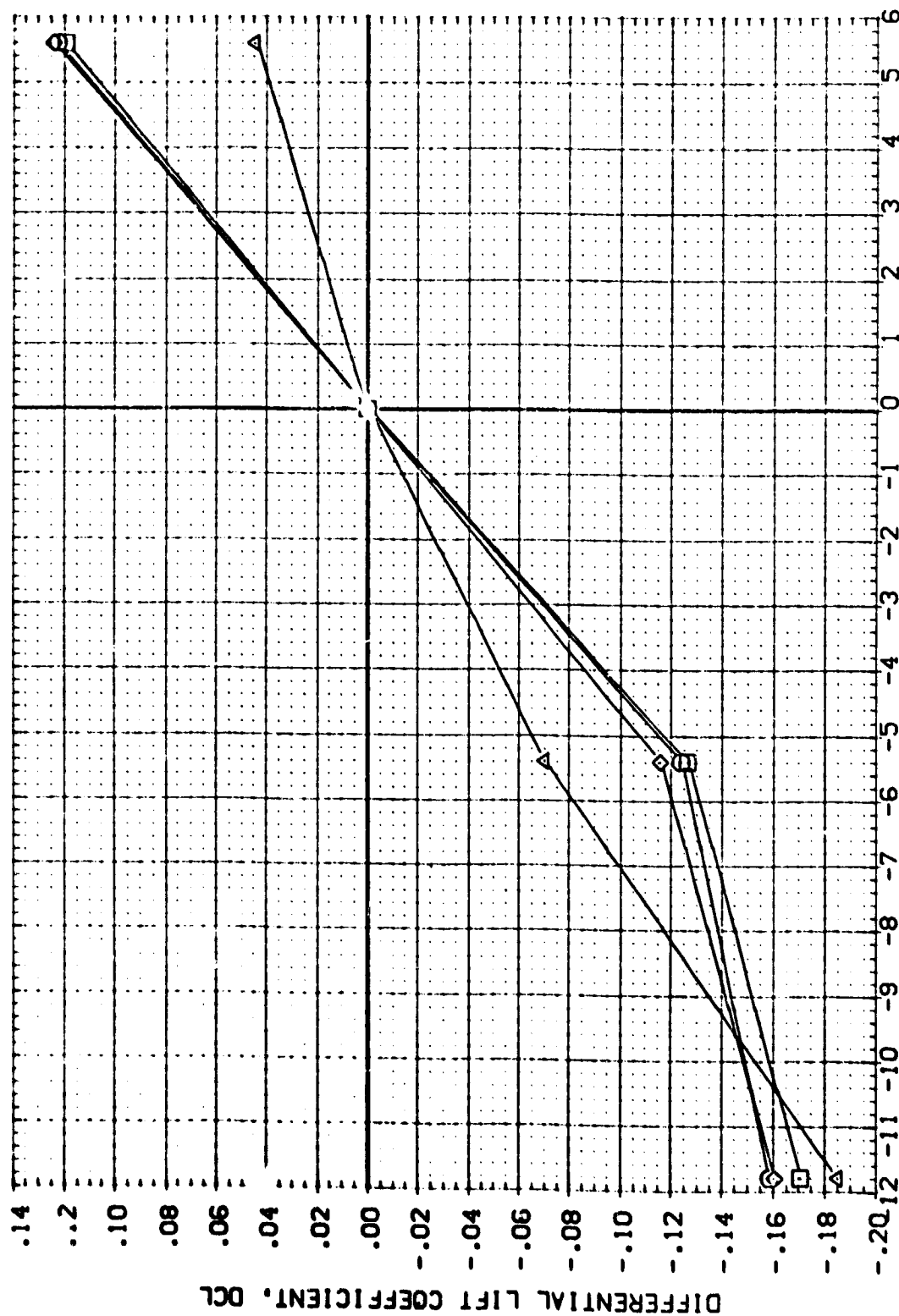


FIGURE 15 1398 ORBITER (MOD NOSE) ELEVON DEFLECTION INCREMENTAL EFFECTS

CA17-LIPT138.ORB 3.(B21C7F5M4)(W107E23)(V7R5) (NPP016)

PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION	
SYMBOL	ALPHA	RN/L	DELTON	DELTON	SREF	SO, IN.
○	.000		5.600	.000	LREF	INCHES
□	10.000	AILRON	-14.250	NPP016	BREF	INCHES
◇	20.000	SPDRK	.000	NPP014	XMRP	INCHES
△	30.000	BETA	-5.400	NPP015	YMRP	INCHES
					ZMRP	INCHES
					SCALE	SCALE
						.0150

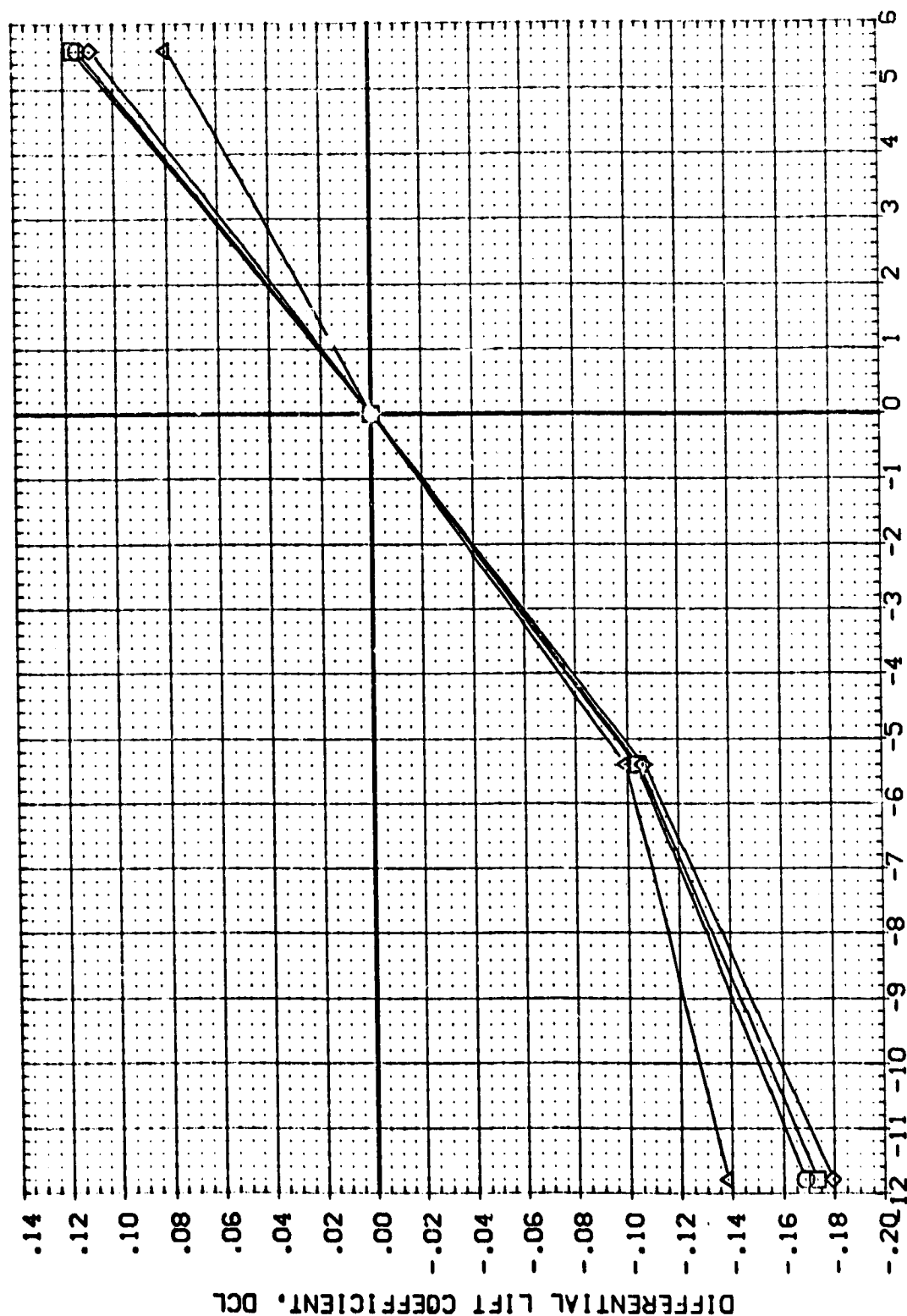
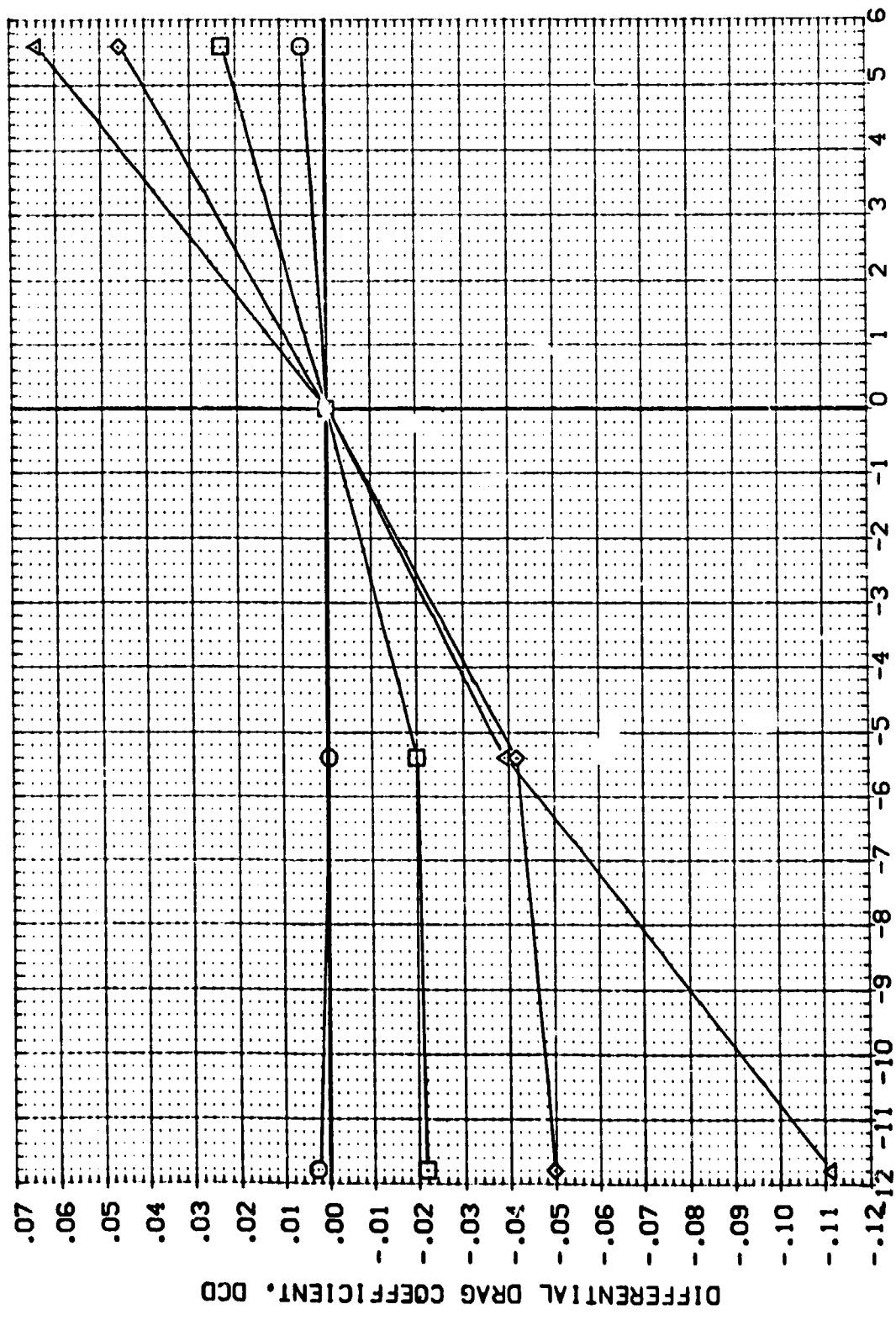


FIGURE 15-139B ORBITER (MOD NOSE) ELEVON DEFLECTION INCREMENTAL EFFECTS

0A17.LIPT138.ORB 3.(B21C7F5M4)(W107E23)(V7R5) (NPP016)

SYMBOL	PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
	ALPHA	RM/L	4.700	ELEVON	5.600	DATASET	DELTON	SREF	50. IN.	
○	.000	AILRON	.000	BOFLAP	-14.250	NPP016	.000	REF	19.3545	INCHES
□	10.000	SPOBRK	24.920	RUDDER	.000	NPP014	-11.800	BAEF	14.0502	INCHES
◇	20.000	BETA	.000					YMRP	12.5770	INCHES
△	30.000							ZMRP	6.0000	INCHES
								SCALE	.0150	SCALE



DIFFERENTIAL ELEVON DEFLECTION, DELTON

FIGURE 15 139B ORBITER (MOD NOSE) ELEVON DEFLECTION INCREMENTAL EFFECTS

00A17.LTPT138.ORB 3.(B21C7F5M4)(W107E23)(V7R5) (NPP016.)

SYMBOL

ALPHA

PARAMETER

VALUES

DATA

328

8

Source: The

6

000
10.000
20.000
30.000

RAVL
MILRON
SPOBRK
BETA

0.000
0.000
4.920
0.000

EVON
FLAP
DOER

DA- 500
NPI- 250
NPI- 000

DEL V
-5-
-5-

DATE	NPF	NPF
10/1/10	10/1/10	10/1/10
10/2/10	10/2/10	10/2/10
10/3/10	10/3/10	10/3/10
10/4/10	10/4/10	10/4/10
10/5/10	10/5/10	10/5/10
10/6/10	10/6/10	10/6/10
10/7/10	10/7/10	10/7/10
10/8/10	10/8/10	10/8/10
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10/14/10	10/14/10	10/14/10
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10/26/10	10/26/10	10/26/10
10/27/10	10/27/10	10/27/10
10/28/10	10/28/10	10/28/10
10/29/10	10/29/10	10/29/10
10/30/10	10/30/10	10/30/10
10/31/10	10/31/10	10/31/10

-11-

NE
SREF
LREF
BREF
XMRP
YMRP

1560
3545
0502
5770
0000

INCHES
SQ. IN.
INCHES

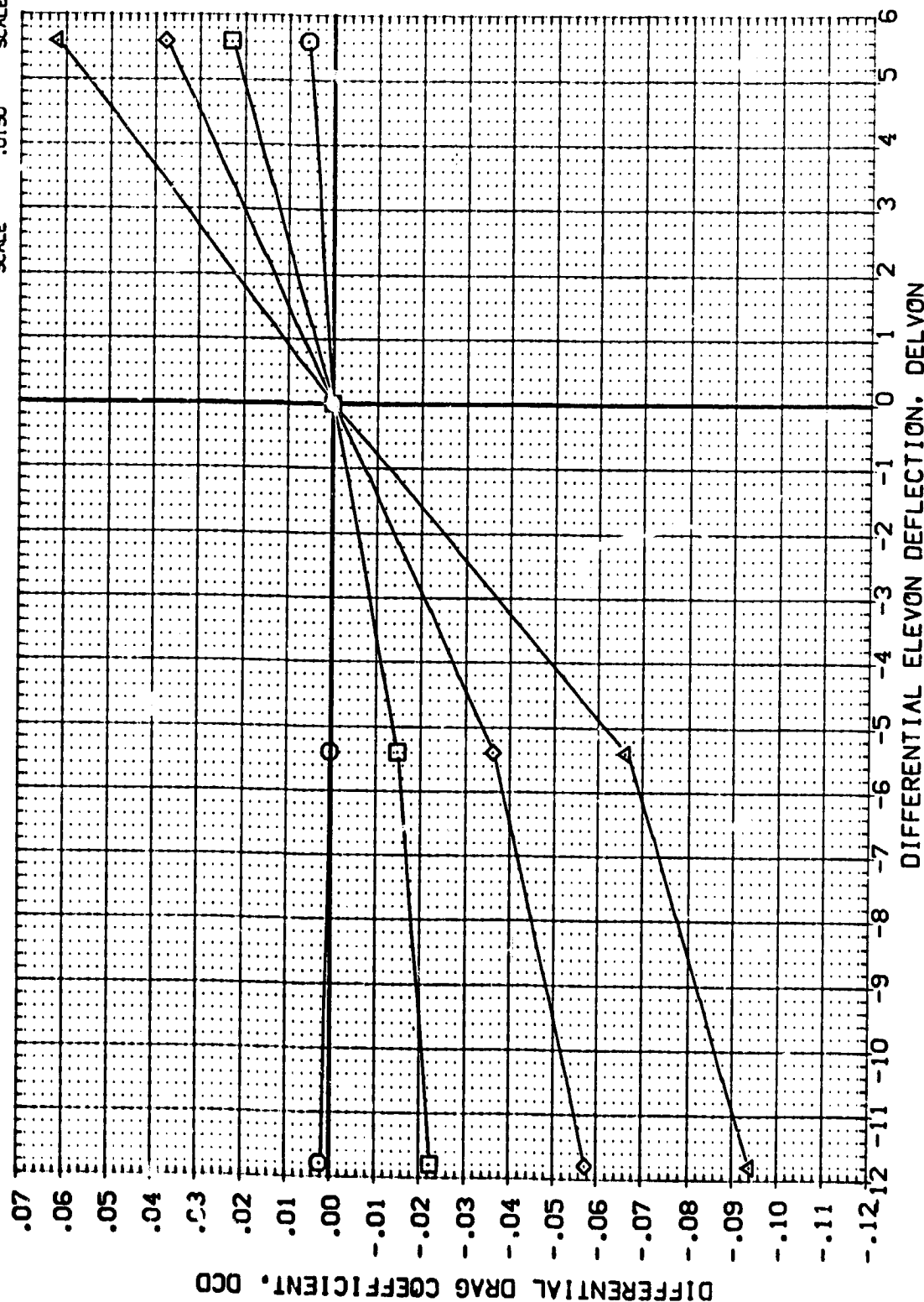
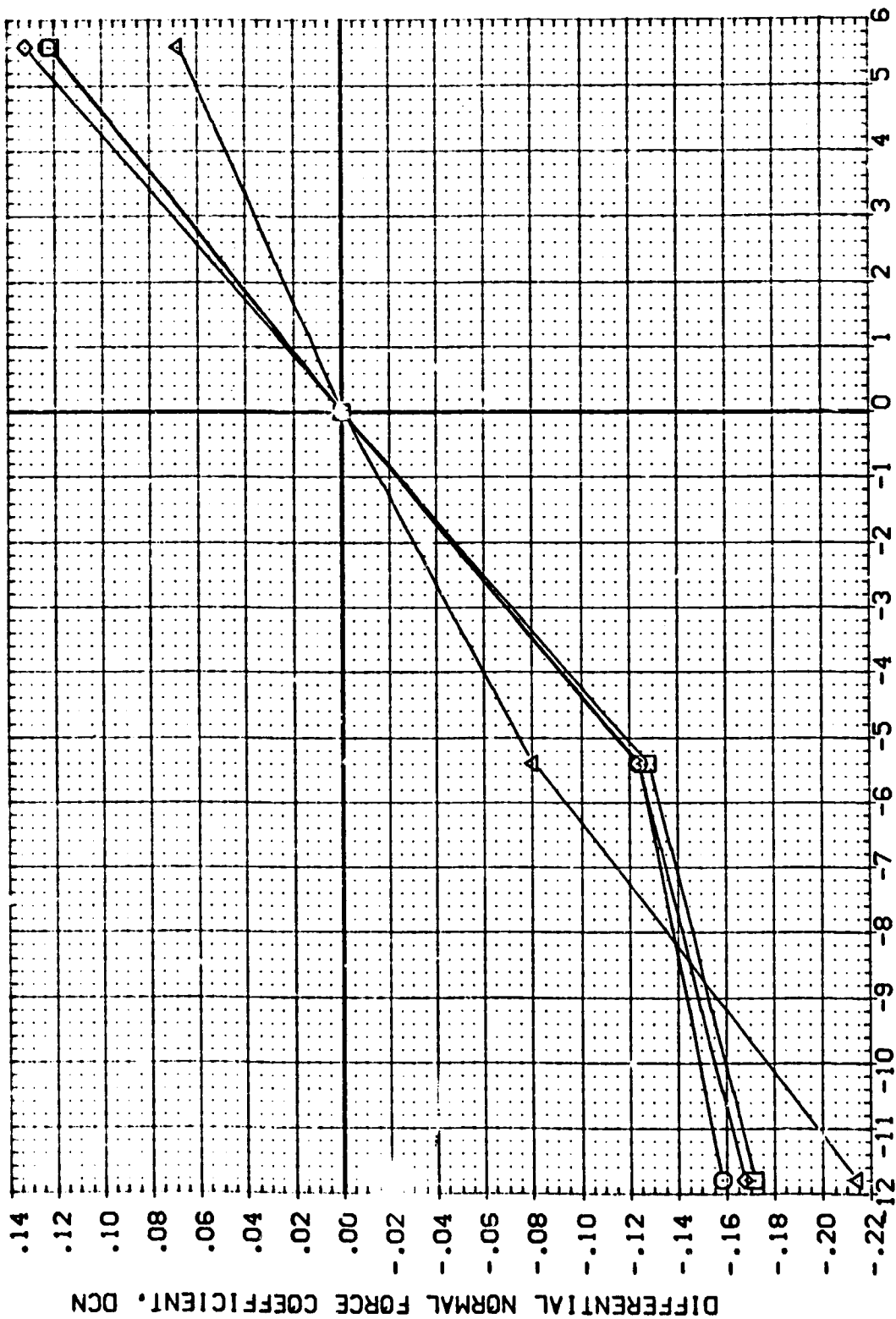


FIGURE 15 139B ORBITER (MOD NOSE) ELEVON DEFLECTION INCREMENTAL EFFECTS



0A17.LTPT138.ORB 3.(B21C7F5M4)(W107E23)(V7R5) (NPP016)

SYMBOL		PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
○	ALPHA	4.70L	ELEVON	5.600	DELTON	SREF	SC. IN.
□	RV/L	.000	BOFLAP	-14.250	NPP016	LREF	INCHES
◇	AILRON	24.920	P/DGER	.000	NPP015	BREF	INCHES
△	SPCRK	.000		-5.400		XREF	INCHES
	BETA					YREF	INCHES
						ZREF	INCHES
						SCALE	SCALE



DIFFERENTIAL ELEVON DEFLECTION, DELTON
FIGURE 15 139B ORBITER (MOD NOSE) ELEVON DEFLECTION INCREMENTAL EFFECTS

0A17.LTPT138.ORB 3.(B21C7F5M4)(W107E23)(V7R5) (NPP016)

SYMBOL	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
	ALPHA	RV/L	ELEVON	BOFLAP	R-DOER	DELTON	DELTON	DELTON	SREF	LREF	SC.IN.	INCHES
○	.000	10.000	.000	24.920	.000	-14.250	5.600	NPP016	87.1560	19.2545	14.0502	INCHES
□	10.000	AILRON	.000	24.920	R-DOER	-5.400	.000	NPP015	12.5770	6.0000	6.0000	INCHES
◇	20.000	SPCRK	.000	.000								INCHES
△	30.000	BETA										SCALE

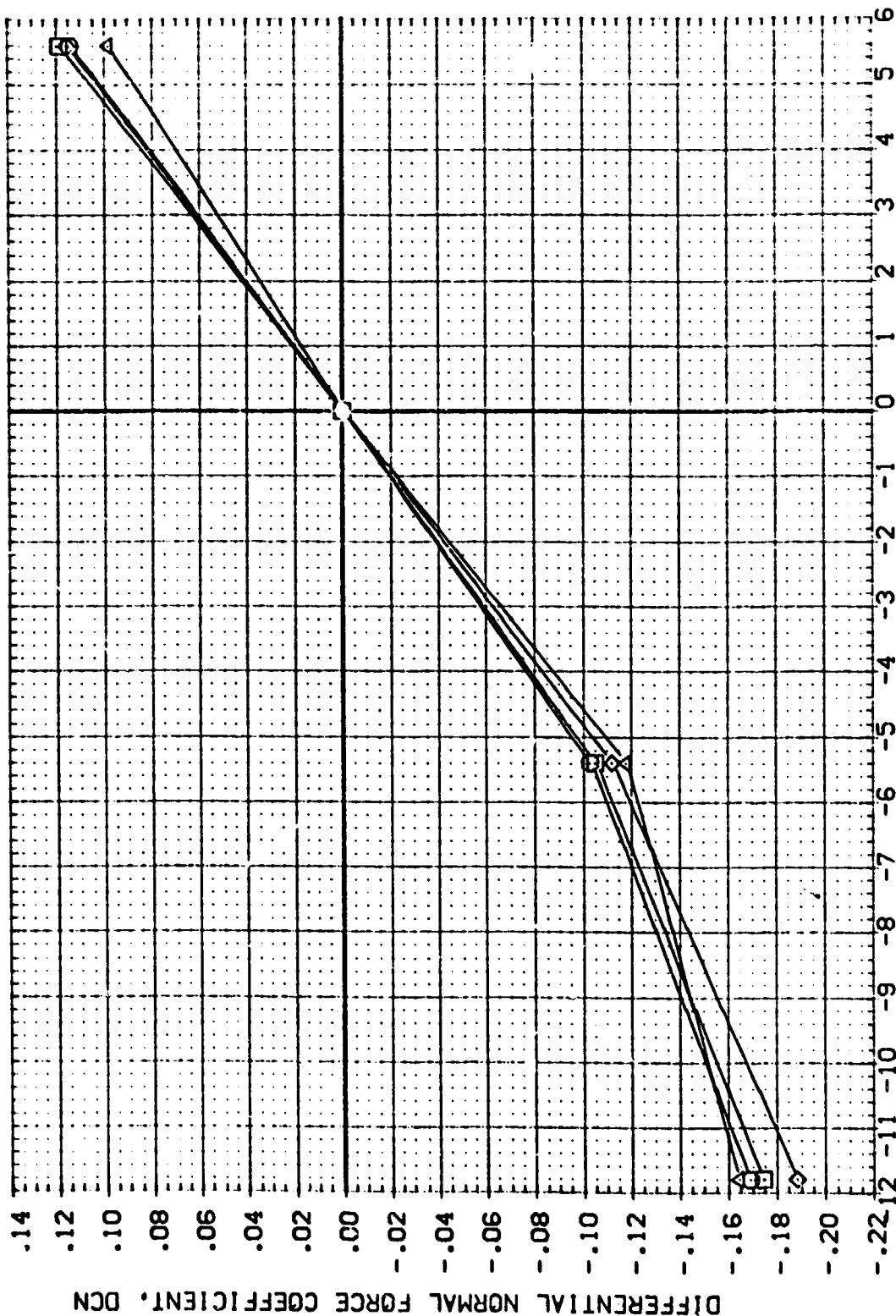


FIGURE 15 1398 ORBITER (MOD NOSE) ELEVON DEFLECTION INCREMENTAL EFFECTS

SYMBOL	A-P-A	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
01	RV/L .000	4.700 E/EVEN	DELVEN 5.600	DELVEN 87.150
10	ALL/BN .000	BDI/AP	NAPC02 -14.250	NAPC02 9.100
10	SPCRK 20.000	R/CGR	NAPC14 .000	NAPC14 1.400
10	BETA 30.000		NAPC15 -5.400	NAPC15 1.200
Δ				SCALE 6

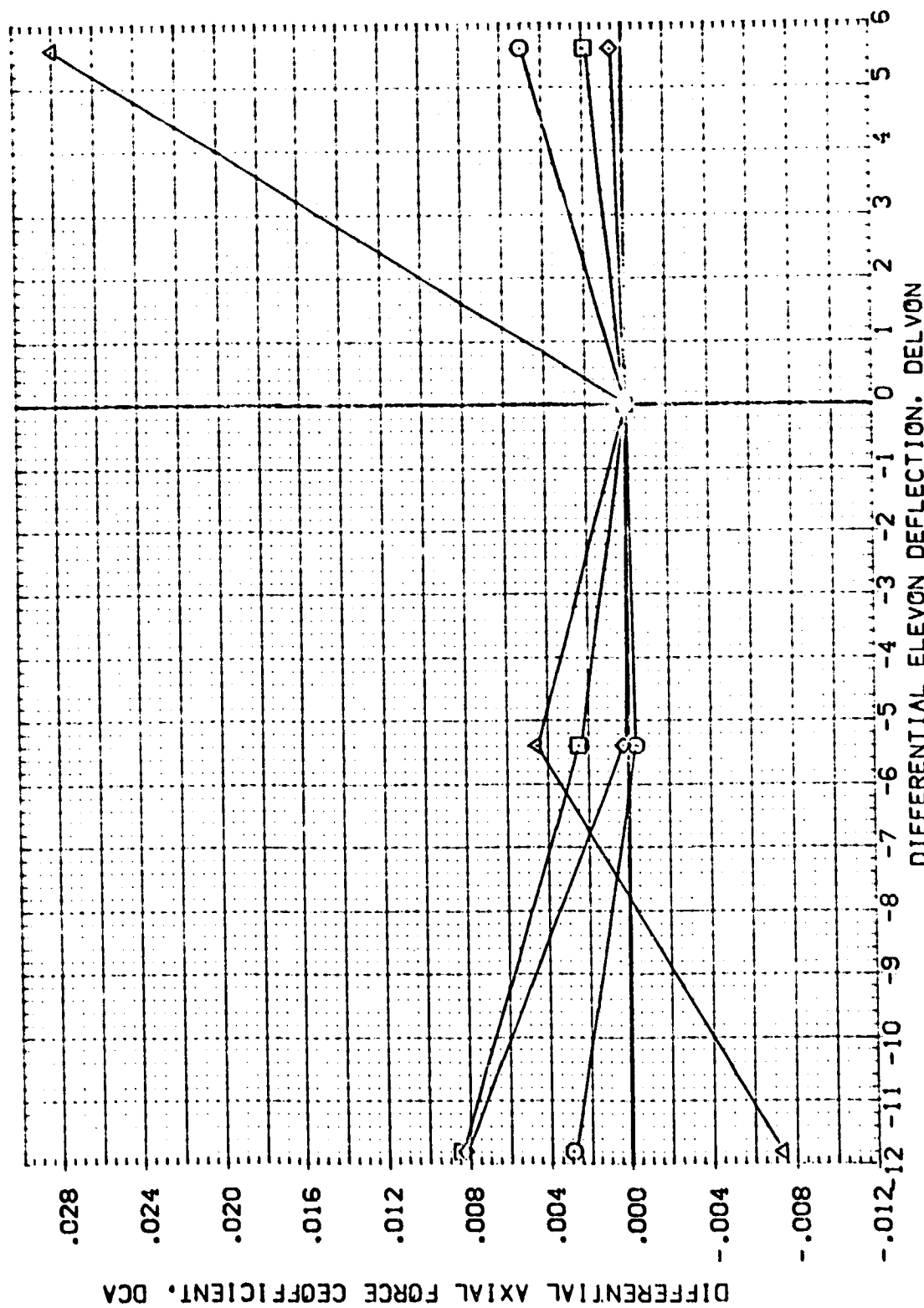
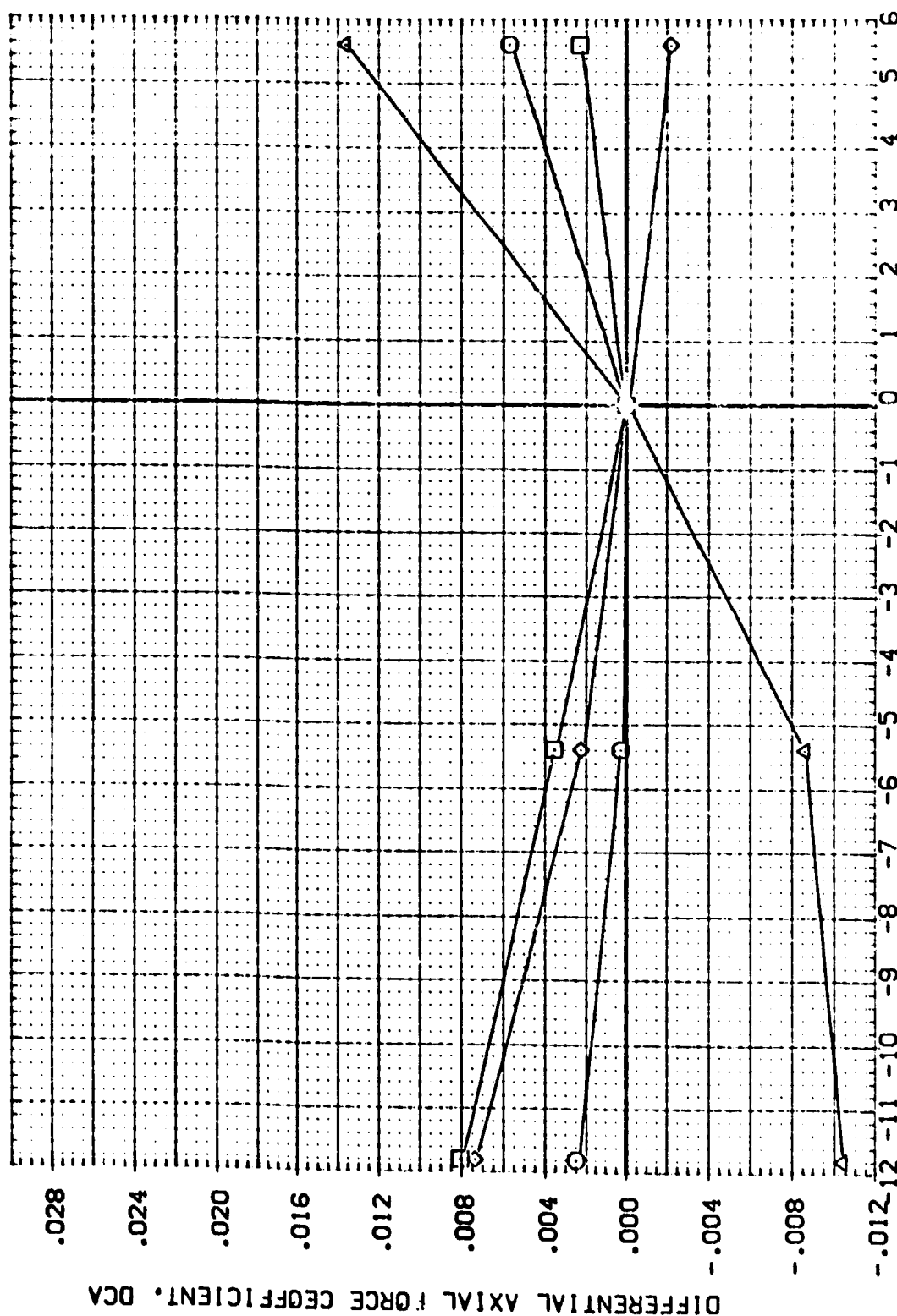


FIGURE 15 139B ORBITER (MOD NOSE) ELEVON DEFLECTION INCREMENTAL EFFECTS

(NPP016)

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	DELVDN	SREF	REFERENCE INFORMATION
○	.000	RNVL 10.000	5.600		87.1563	SQ. IN.
□	10.000	ELEV 10.000	-14.200	.000	19.2545	INCHES
◇	20.000	BOFLAP .000	NPP016		14.0512	INCHES
△	30.000	RJDER 24.920	NPP014	-11.800	12.9770	INCHES
		.000			.0000	INCHES
					6.0000	INCHES
					.0150	SCALE



DIFFERENTIAL ELEVON DEFLECTION. DELVON

FIGURE 15 139B ORBITER (MOD NOSE) ELEVON DEFLECTION INCREMENTAL EFFECTS

0A17.LTPT138.ORB 3.(B21C7FSM4)(W107E23)(V7R5) (NPP016)

PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION	
SYMBOL	ALPHA	RVAL	PARAMETRIC VALUES	DELTON	DELTON	SO. IN.
○	.000	4.700	ELEVON	5.600	NPP002	87.1560
□	10.000	.000	BOFLAP	-14.250	NPP016	19.3545
◇	20.000	24.920	R-DOER	.000	NPP014	14.0502
△	30.000	BETA				12.5770
						INCHES
						INCHES
						INCHES
						INCHES
						INCHES
						SCALE
						SCALE

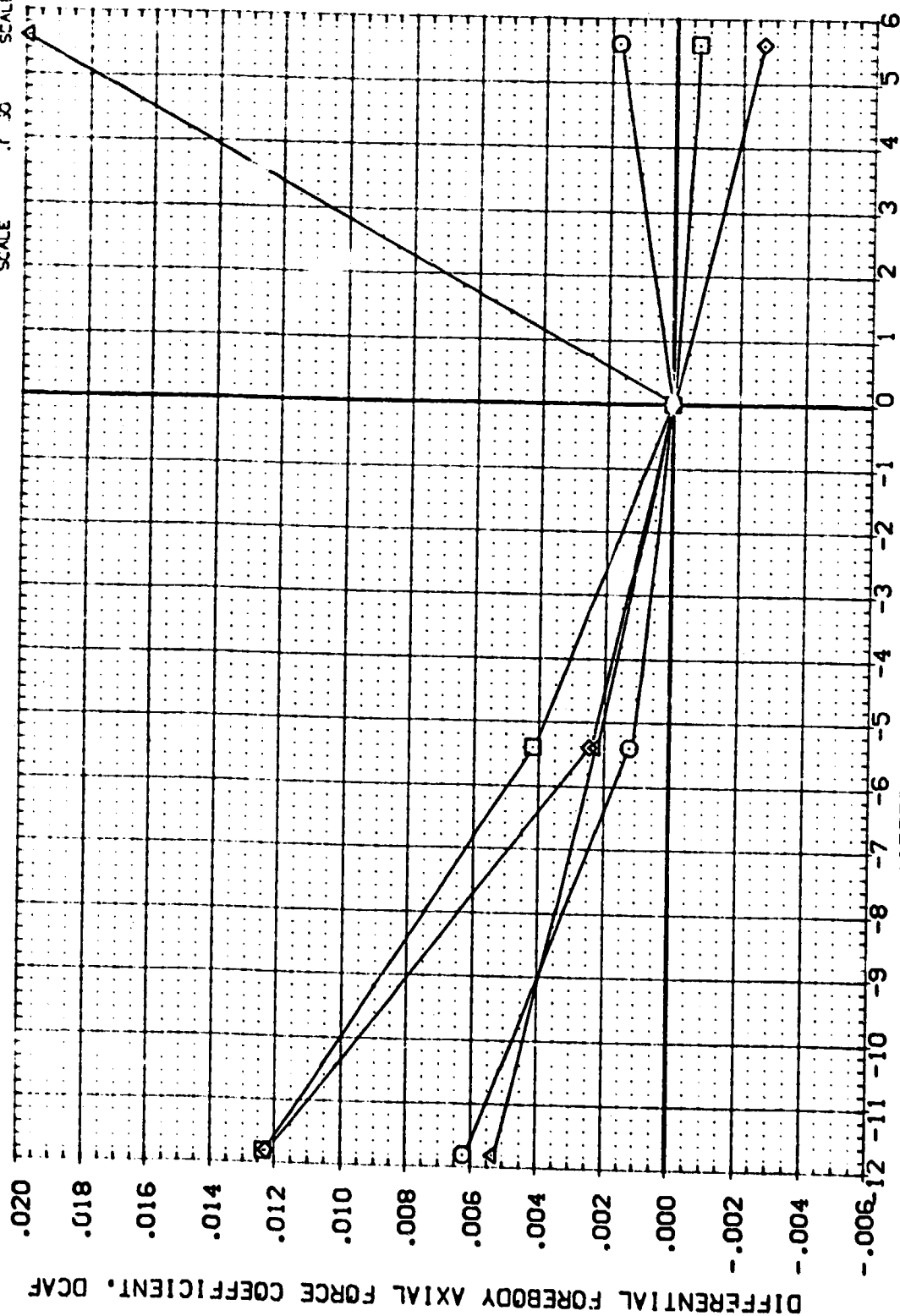


FIGURE 15 1398 ORBITER (MOD NOSE) ELEVON DEFLECTION INCREMENTAL EFFECTS

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	.000	RV/L	DELTON	DELTON
□	10.000	ELEVON	5.600	5.600
◇	20.000	AILRON	-14.250	19.3545
△	30.000	SPCRK	.000	14.0502
		BETA	-5.400	12.5770
				.0000
				6.0000
				SCALE
				.0150

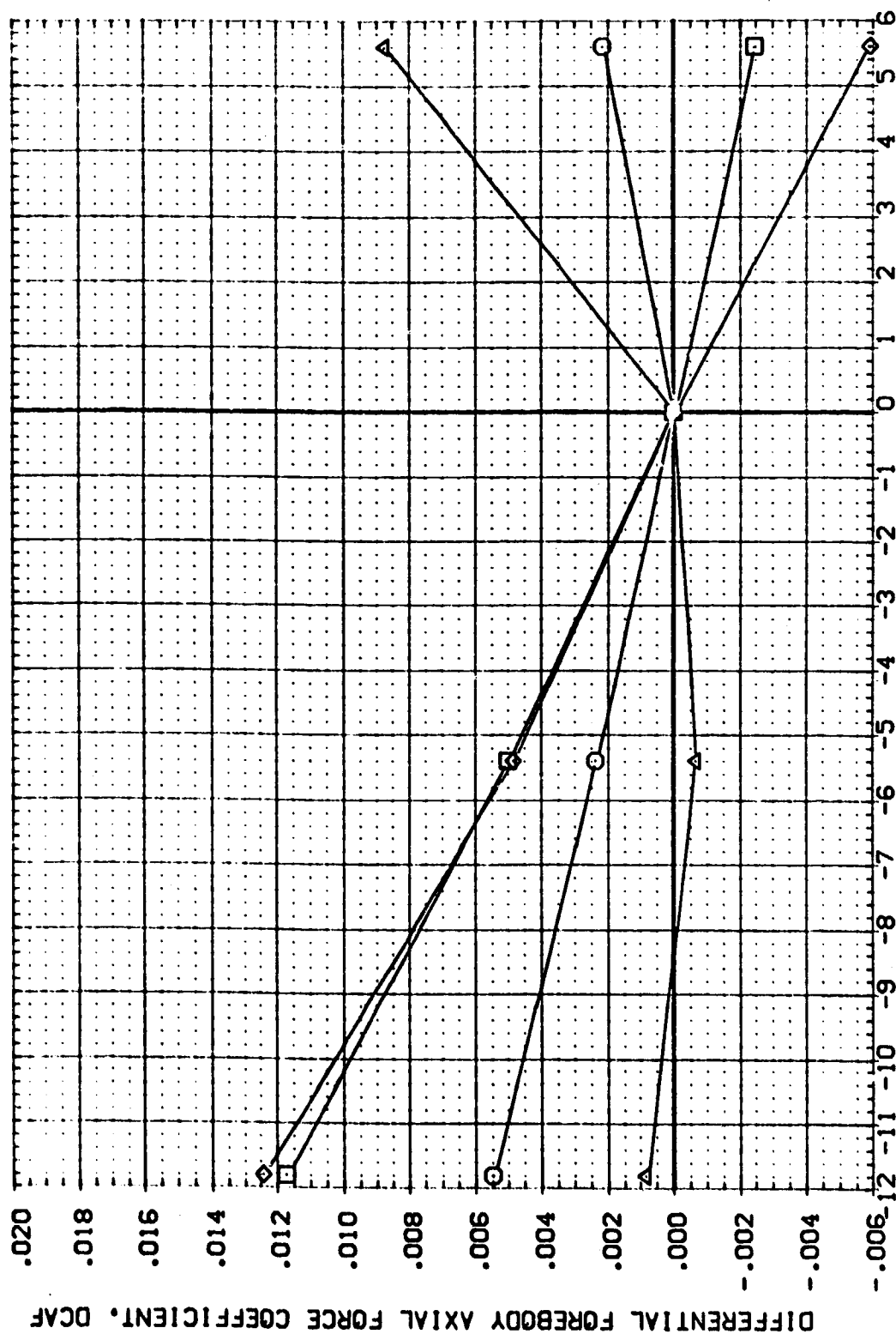


FIGURE 15 139B ORBITER (MOD NOSE) ELEVON DEFLECTION INCREMENTAL EFFECTS



0A17.LTPT138.ORB 3.(B21C7F5M4)(W107E23)(V7R5) (NPP016)

SYMBOL	PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
	ALPHA	RN/L	4.700	ELEVON	5.600	DELTON	DELTON	SREF	50. IN.	INCHES
□	.000	AILRON	.000	BOFLAP	-14.250	NPP016	NPP002	LREF	19.3545	INCHES
◇	10.000	SPOBRK	24.920	RUDDER	.000	NPP014	NPP015	BREF	14.0502	INCHES
△	20.000	BETA	.000					XMRP	12.5770	INCHES
	30.000							YMRP	.0000	INCHES
								ZMRP	6.0000	INCHES
								SCALE	.0150	SCALE

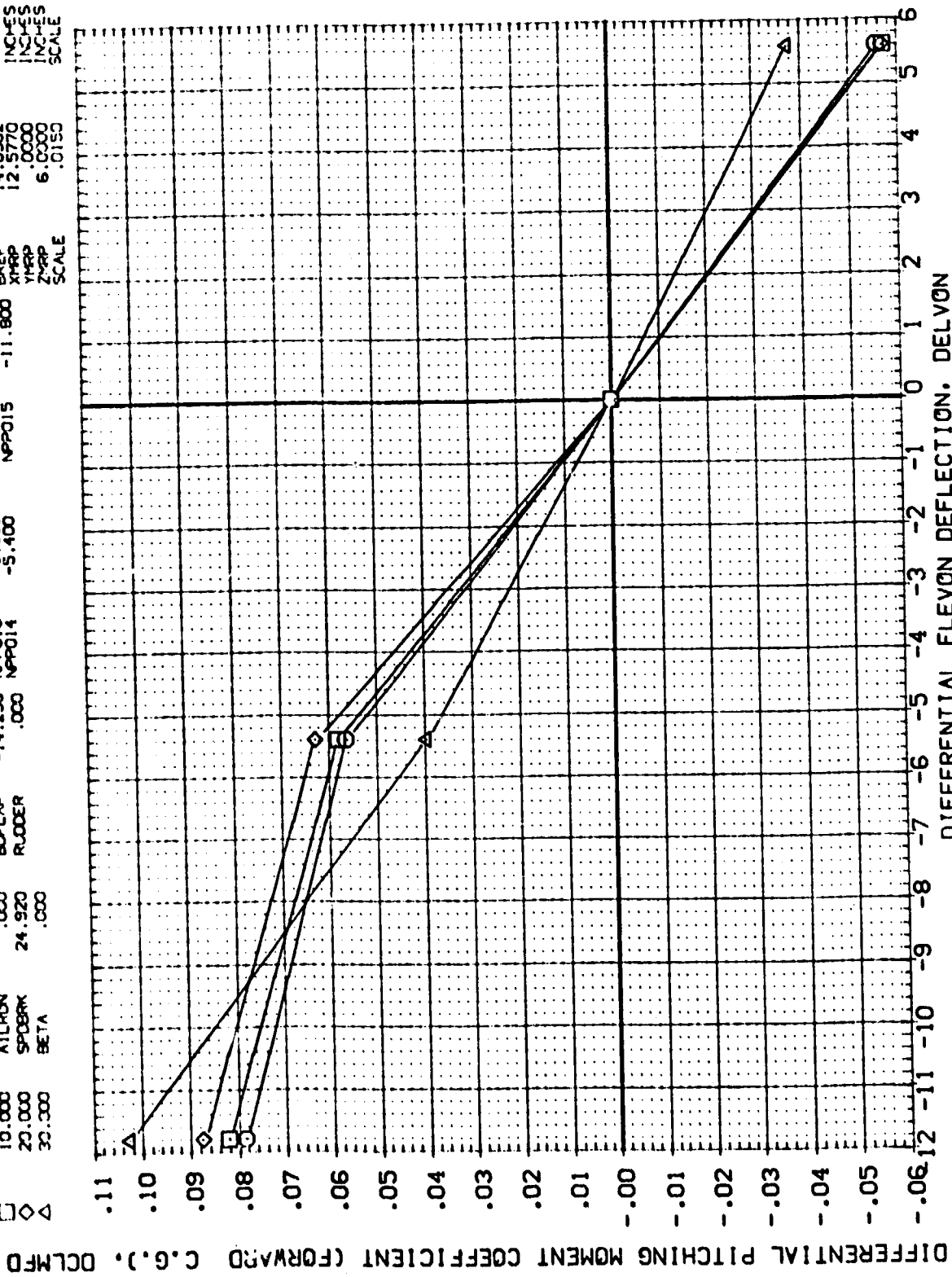
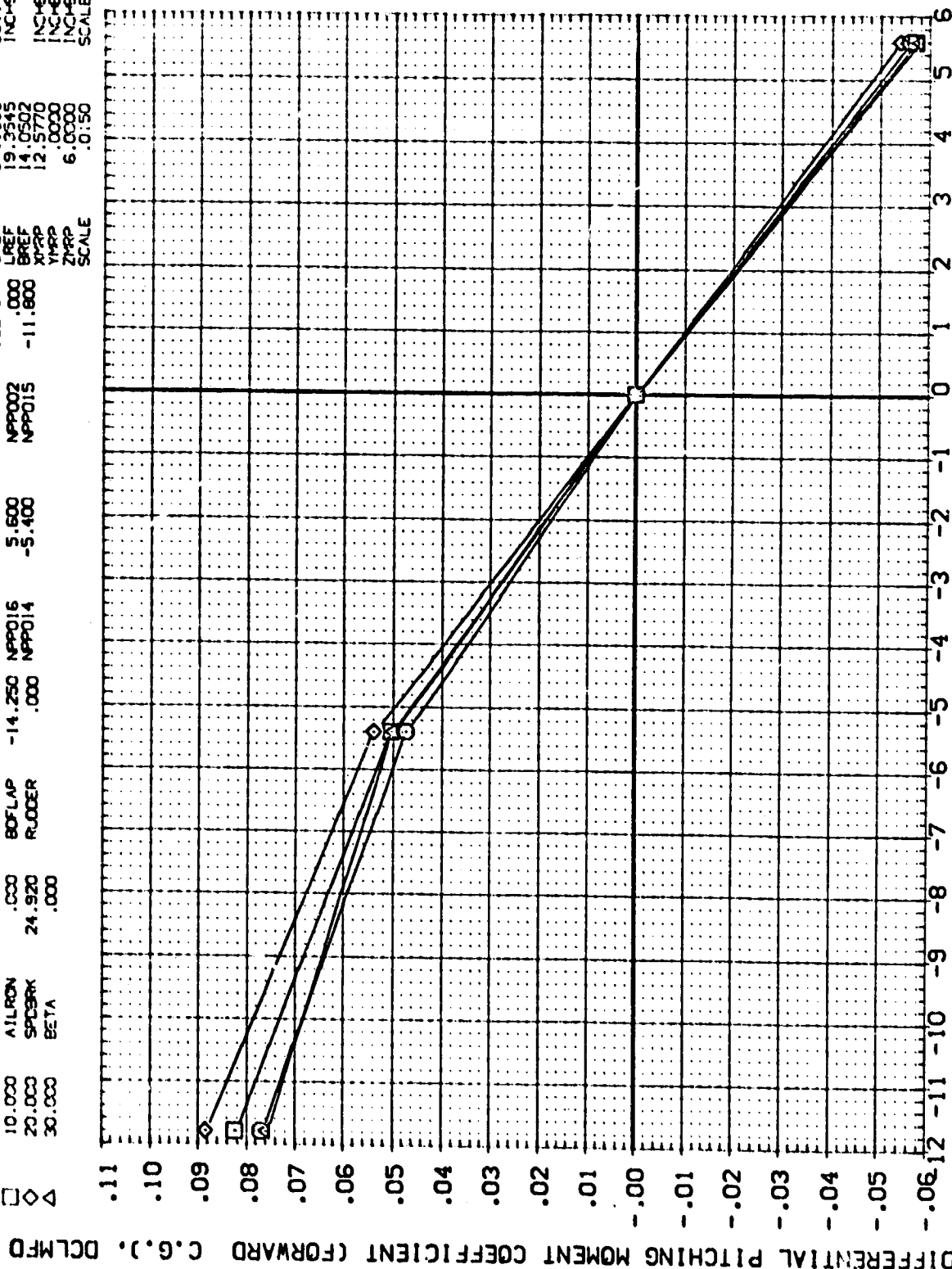


FIGURE 15 139B ORBITER (MOD NOSE) ELEVON DEFLECTION INCREMENTAL EFFECTS

0A17.LTPT138.ORB 3.(B21C7F5M4)(W107E23)(V7R5) (NPP016)

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	DELTON	DELTON	DELTON	SCALE	REFERENCE INFORMATION
◇	.000	RV/L	5.600	DELTON	DELTON	DELTON	0.1560	SC. IN.
□	10.000	AILRON	-14.250	NPP016	NPP002	NPP015	19.3545	INCHES
◇	20.000	SPDRK	.000	NPP014	NPP015	NPP015	14.0502	INCHES
△	30.000	BETA	24.920	NPP014	NPP015	NPP015	12.5770	INCHES
							6.0000	INCHES
							6.0000	INCHES
							0.150	SCALE

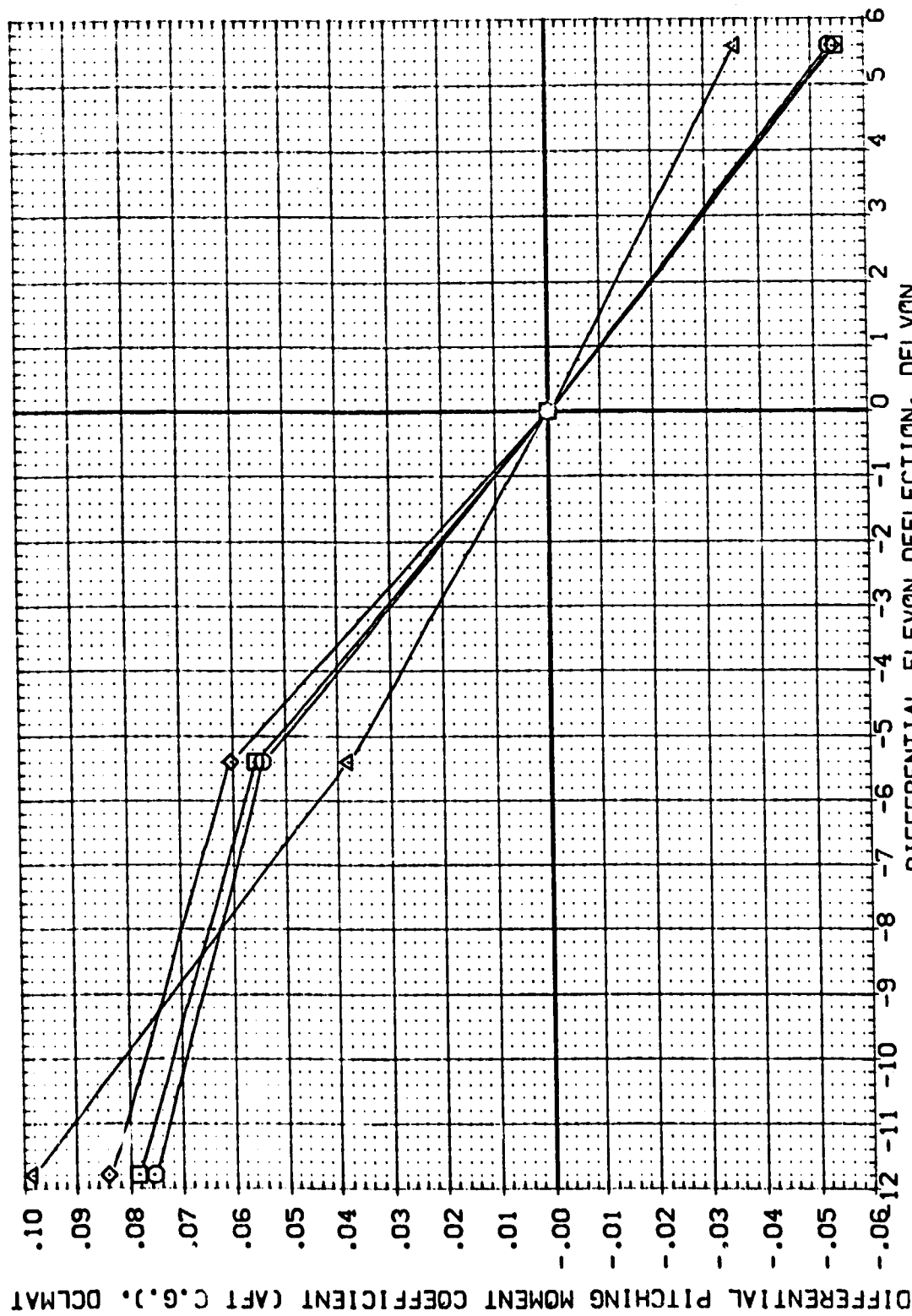


DIFFERENTIAL ELEVON DEFLECTION, DELTON
FIGURE 15 1398 ORBITER (MOD NOSE) ELEVON DEFLECTION INCREMENTAL EFFECTS



0A17.LTPT138.ORB 3.(B21C7F5M4)(W107E23)(V7R5) (NPP016)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	RV/L	DELTON	DELTON	SREF	SO. IN.
.000	4.700	5.600	NPP002	LREF	INCHES
10.000	.000	-14.250	NPP016	BREF	INCHES
20.000	24.920	.000	NPP015	XMRP	INCHES
30.000	BETA	.000		YMRP	INCHES
				ZMRP	INCHES
				SCALE	SCALE
					.0150



DIFFERENTIAL ELEVON DEFLECTION, DELTON
DIFFERENTIAL PITCHING MOMENT COEFFICIENT (CFT C.G.), DCLMAT

0A17.LTPT138.ORB 3.(B21C7F5M4)(W107E23)(V7R5) (NPP016)

SYMBOL	ALPHA	RN/L	PARAMETRIC VALUES	5.600	DATASET	DELVON	DATA SOURCE	DATASET	DELVON	SREF	REFERENCE INFORMATION
□	.000		10.000	ELEVON	-14.250	NPP016	5.600	NPP002	.000	LREF	87.1560
□	10.000	ALLRON	.000	BOFLAP	.000	NPP014	-5.400	NPP015	-11.800	BREF	19.3545
◇	20.000	SPDRK	24.920	RUDDER	.000					YREF	14.0502
△	30.000	BETA	.000							ZREF	12.5770
										ZPRP	6.0000
										SCALE	.0150

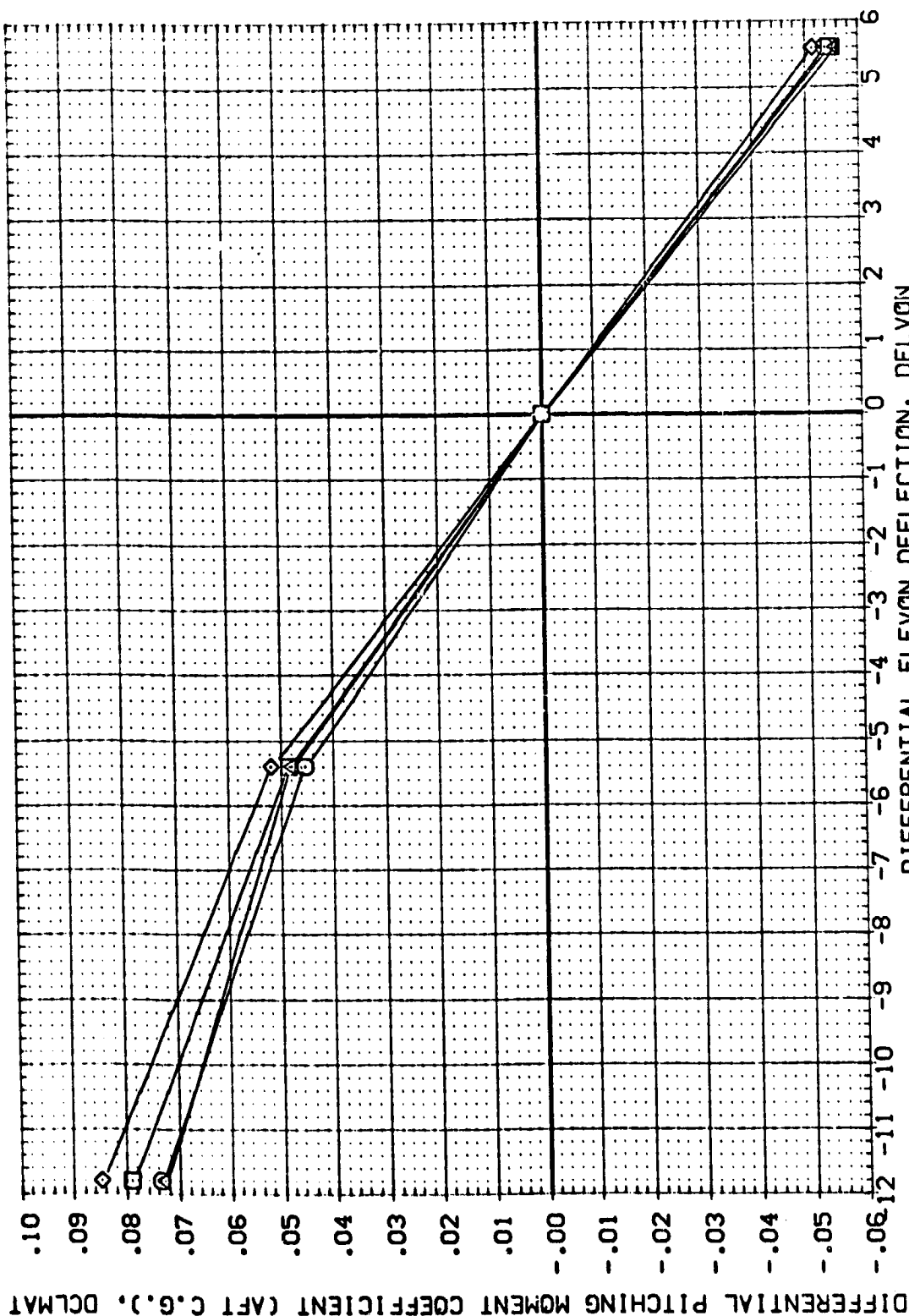


FIGURE 15 139B ORBITER (MOD NOSE) ELEVON DEFLECTION INCREMENTAL EFFECTS

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (APPO10) DATA NOT AVAILABLE
 (APPO11) 0A17.LTPT138.0R8 3.(B21C7F5M4)(V107E23)(V7R5)

ELEVTR BOFLAP SPOBRK RUDDER REFERENCE INFORMATION

.000	.000	.000	.000	SREF	87.1560	50. IN.
.000	.000	.000	.000	LREF	19.3545	INCHES
				BREF	14.0502	
				XMRP	12.5770	INCHES
				YMRP	.0000	INCHES
				ZMRP	6.0000	INCHES
				SCALE	.0150	SCALE

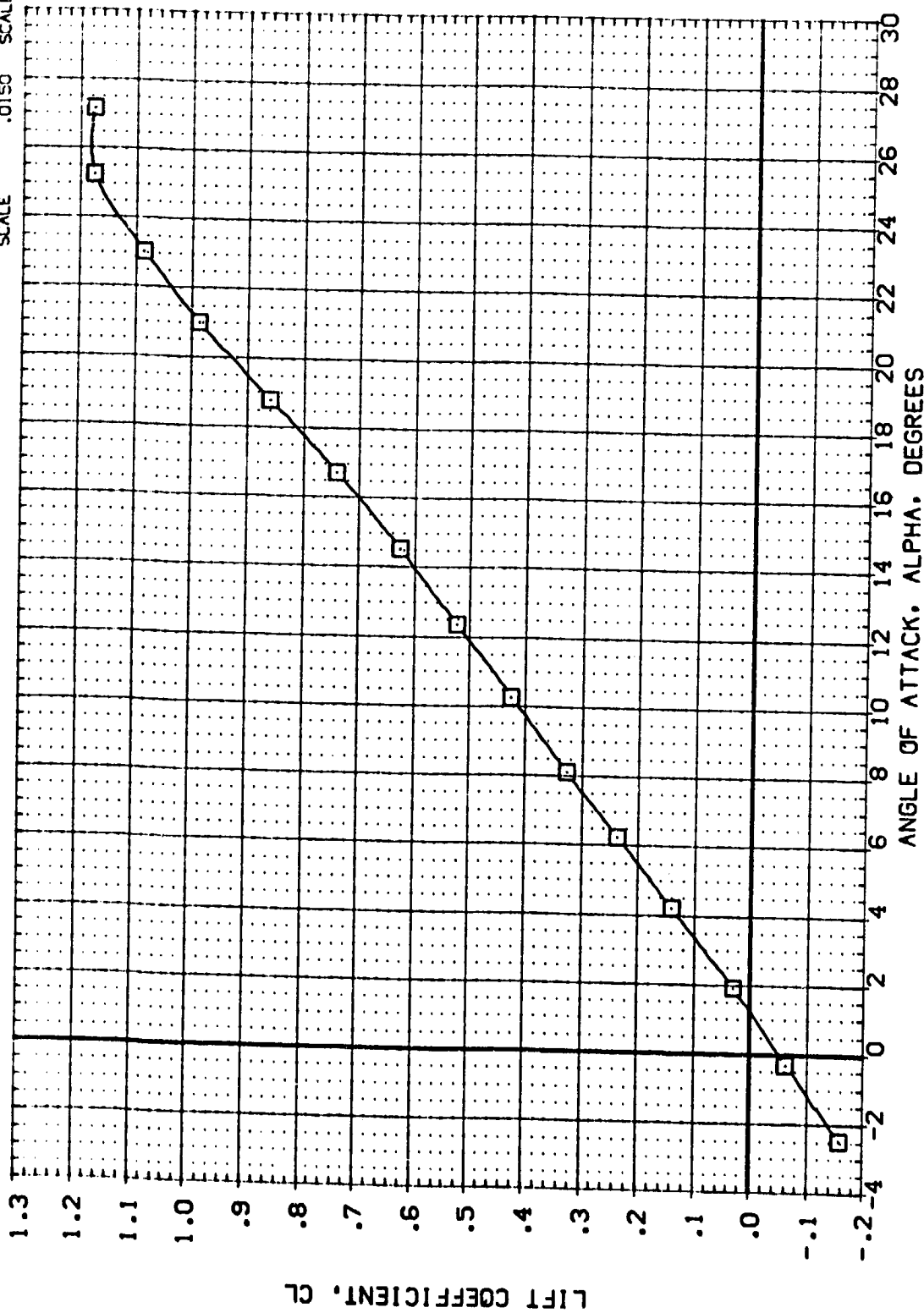


FIGURE 16 1398 ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 2.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(APPROX) DATA NOT AVAILABLE
(APPROX) 0A17.LTPT138.0RB 3.(B21C7FSM4)(V107E23)(V7R5)

ELEVTR BOFLAP SPOBRK RUDDER
.000 .000 24.920 .000
.000 .000 .000 .000

REFERENCE INFORMATION
SREF 87.1560 50. IN
LREF 19.3545 INCHES
BREF 14.0502 INCHES
XMRP 12.5770 INCHES
YMRP .0000 INCHES
ZMRP 6.0000 INCHES
SCALE .0150 SCALE

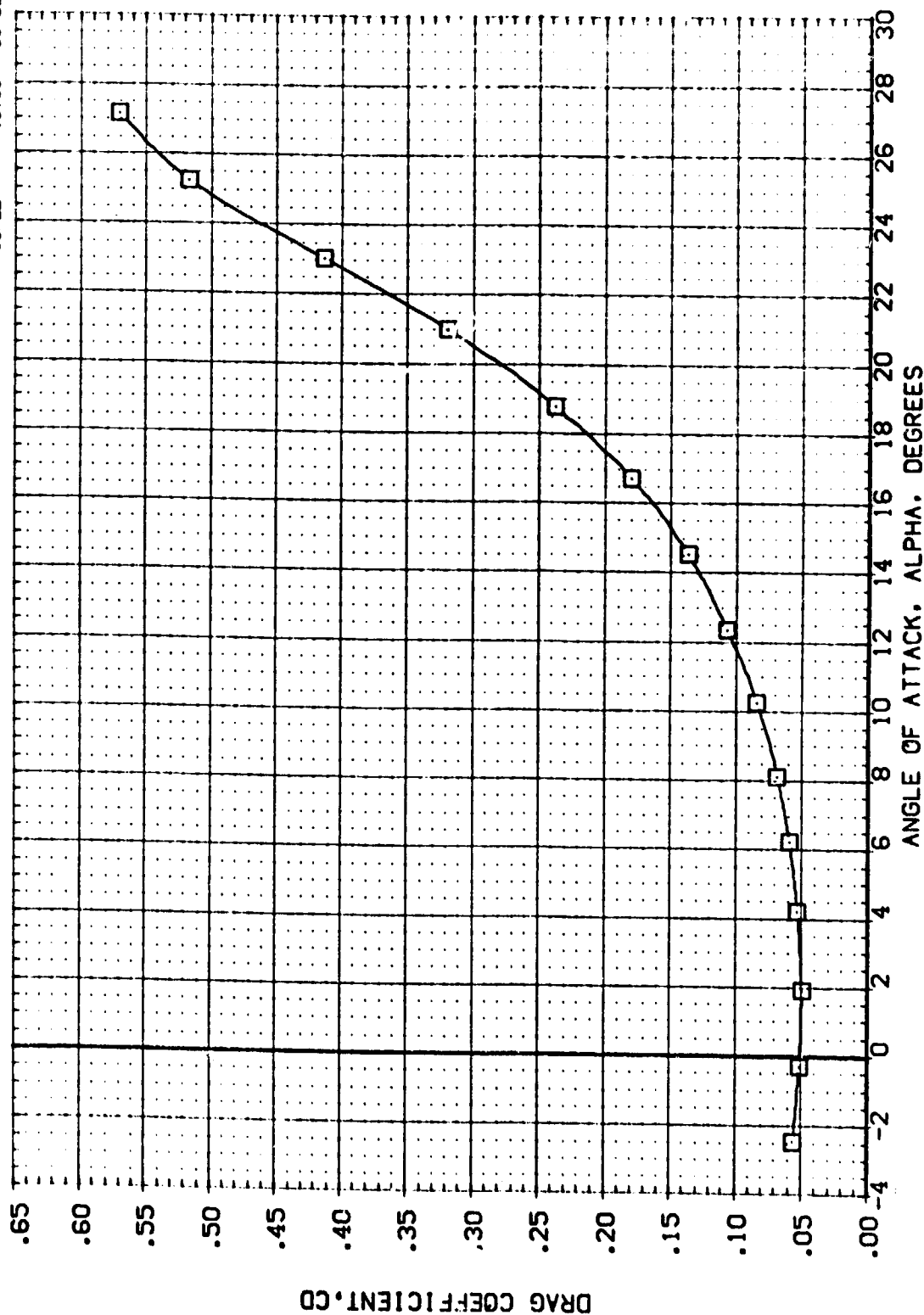


FIGURE 16 1398 ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 2.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION	
(APPO10)	DATA NOT AVAILABLE	.000	.000	24.920	.000	SREF	87.1560
(APPO11)	0A17.LTPT138.0R8 3.(B21C7F5H4)(V107E23)(V7R5)	.000	.000	.000	.000	LREF	19.3545
						BREF	14.0502
						XMRP	12.5770
						YMRP	.0000
						ZMRP	.0000
						SCALE	.0150
							INCHES
							INCHES
							INCHES
							SCALE

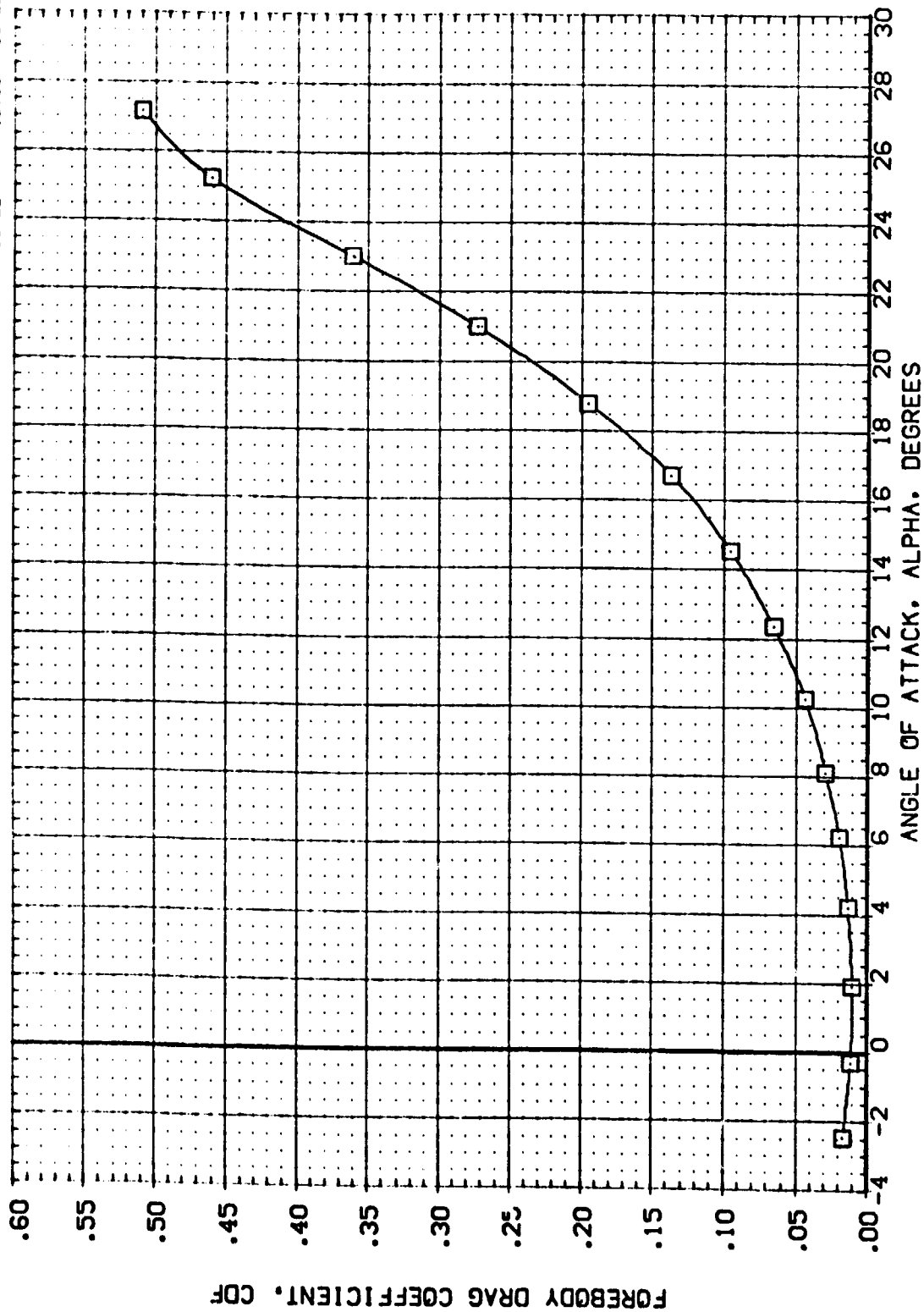


FIGURE 16 1398 ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 2.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (AP010) DATA NOT AVAILABLE
 (AP011) CA17.LTPT138.CRB 3.(B21C7F5M4)(V107E23)(V71.5)

ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
.000	.000	.000	.000	SREF 87.1560 50. IN.
.000	.000	.000	.000	LREF 19.3545 INCHES
				BREF 14.0502 INCHES
				XTRP 12.5770 INCHES
				YTRP .0000 INCHES
				ZTRP 6.0000 INCHES
				SCALE .0150 SCALE

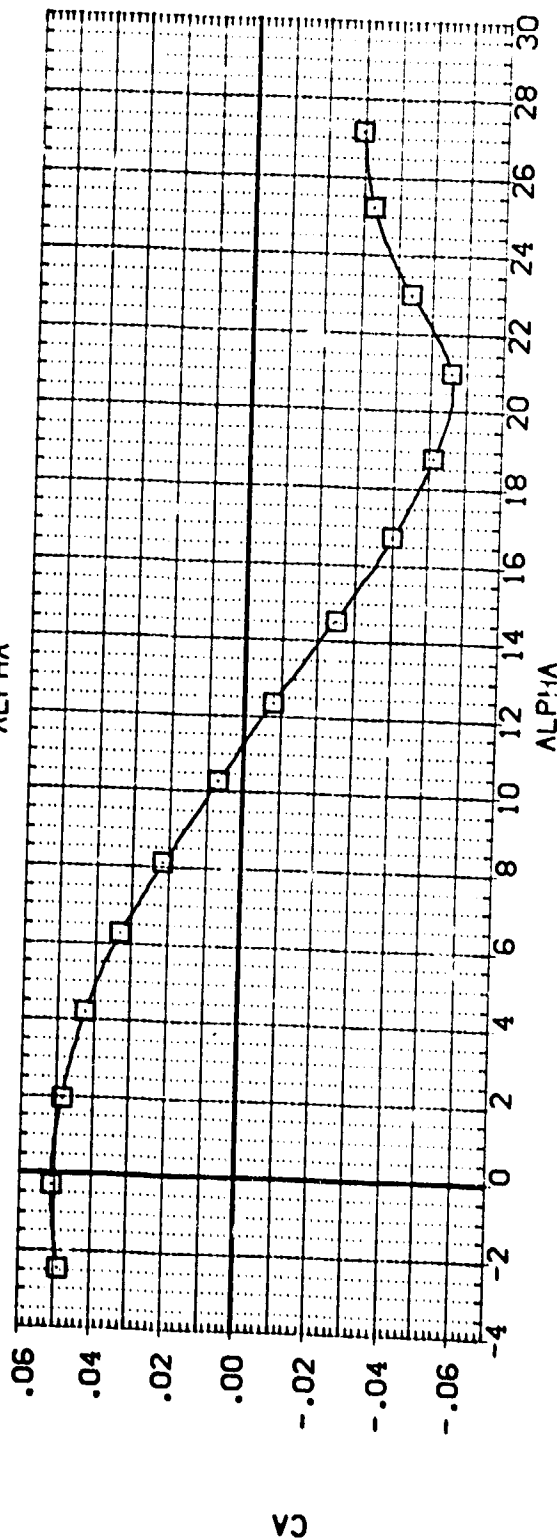
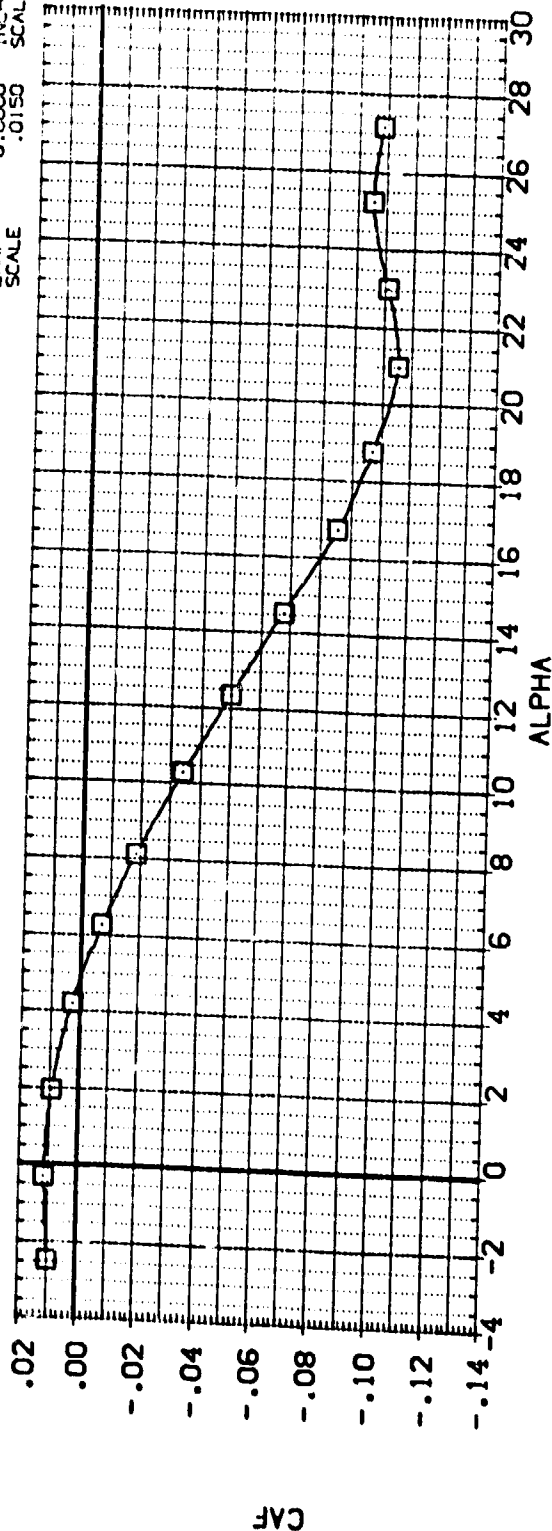


FIGURE 16 1398 ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS
 (AJRN/L = 2.50)



DATA SET SYMBOL: 8
 (APPROX) DATA NOT AVAILABLE
 (APPROX) DATA NOT AVAILABLE
 (APPROX) DATA NOT AVAILABLE

CONFIGURATION DESCRIPTION: CA17.LTPT138.CPB 3.(B21C7F5H4)(V107E23)(V7R5)

ELEVTR: .000
 BOFLAP: .000
 SPOBRK: 24.920
 RUDDER: .000

REFERENCE INFORMATION:
 SREF: 87.1550 SQ. IN.
 LREF: 19.3545 INCHES
 BREF: 14.0502 INCHES
 XMRP: 12.5770 INCHES
 YMRP: .0000 INCHES
 ZMRP: 6.0000 INCHES
 SCALE: .0150

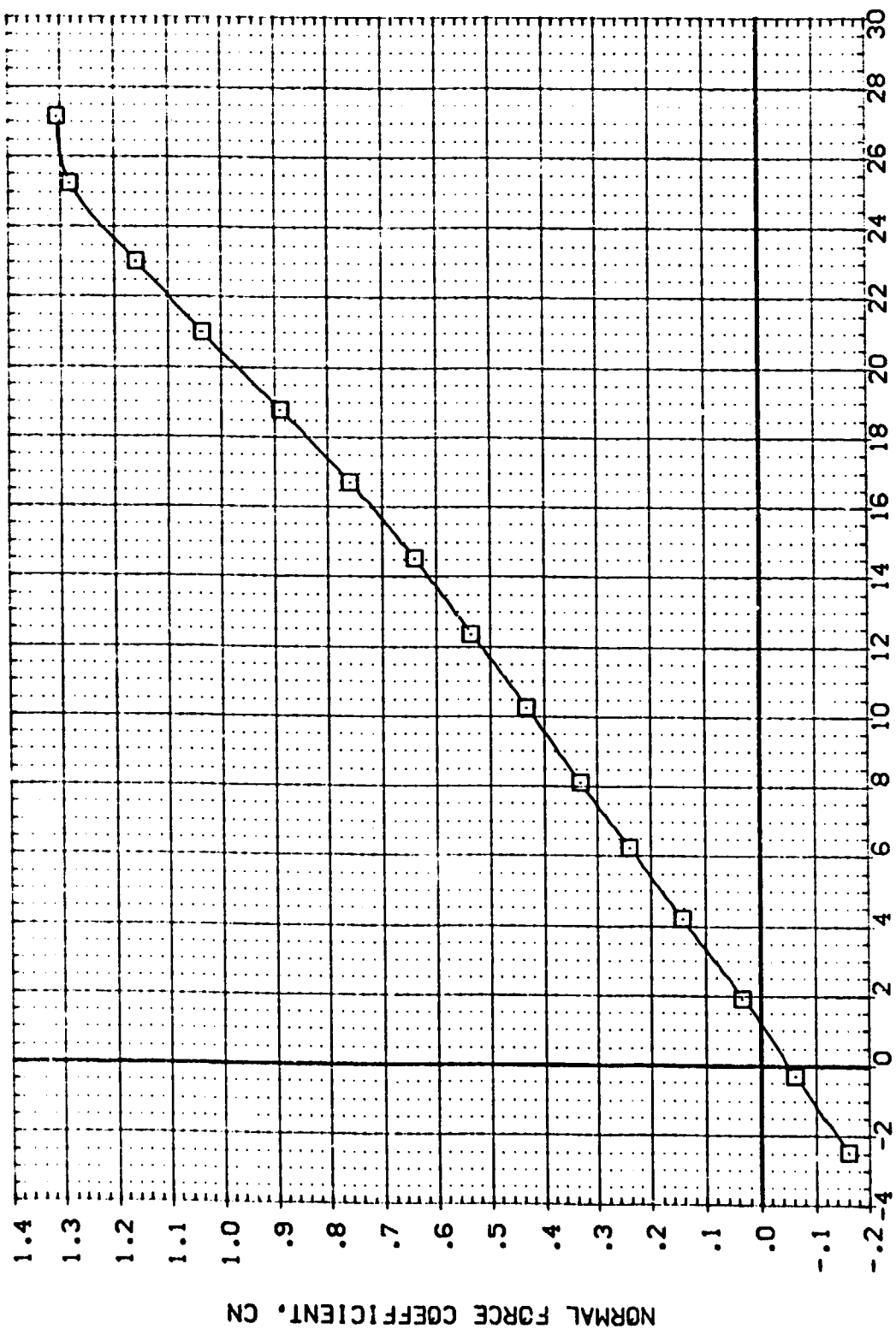


FIGURE 16 139B ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 2.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(APPROX) DATA NOT AVAILABLE
(APPROX) CA17.LTPT138.DRB 3.(B21C7F544)(V107E23)(V7R5)

ELEVTR BOFLAP SPOBRK RUDDER
.000 .000 .000 .000
.000 .000 .000 .000

REFERENCE INFORMATION
SREF 87.1560 SO.IN.
LREF 19.3545 INCHES
XBREF 14.0502 INCHES
XMRP 12.5770 INCHES
YMRP .0000 INCHES
ZMRP 6.0000 INCHES
SCALE .0150 SCALE

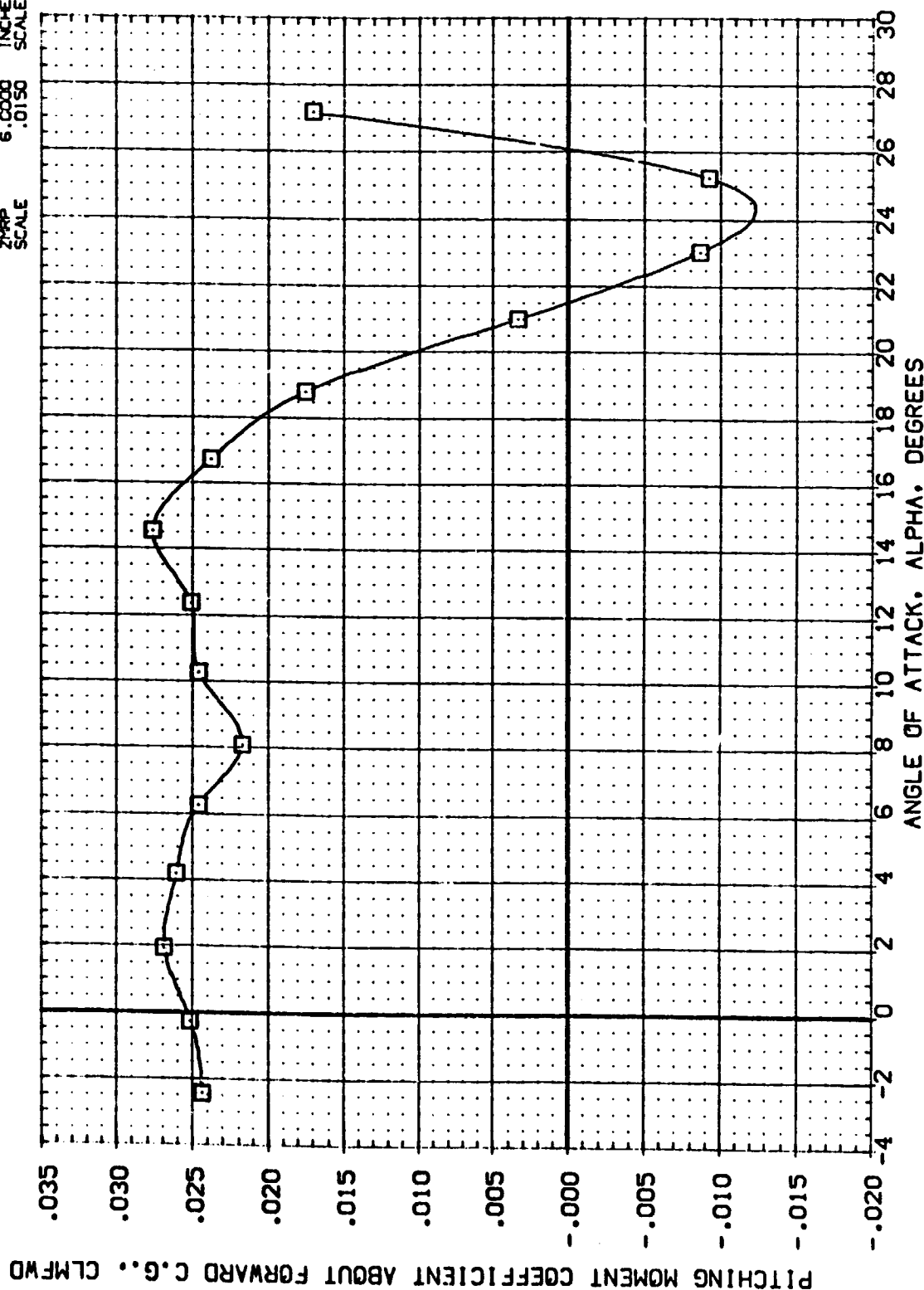


FIGURE 16 1398 ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 2.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPDRBK	RUDDER	REFERENCE INFORMATION
(APPCIC)	DATA NOT AVAILABLE	.000	.000	24.920	.000	SREF 87.1560 SQ. IN.
(APPCIC)	CA17.LPT138.088 3. (B21C7F5M4)(V107E231)(V7R5)	.000	.000	.000	.000	LREF 19.3545 INCHES
						BREF 14.0502 INCHES
						XREF 12.5770 INCHES
						YMRP .0000 INCHES
						ZMRP .0000 INCHES
						SCALE .0150

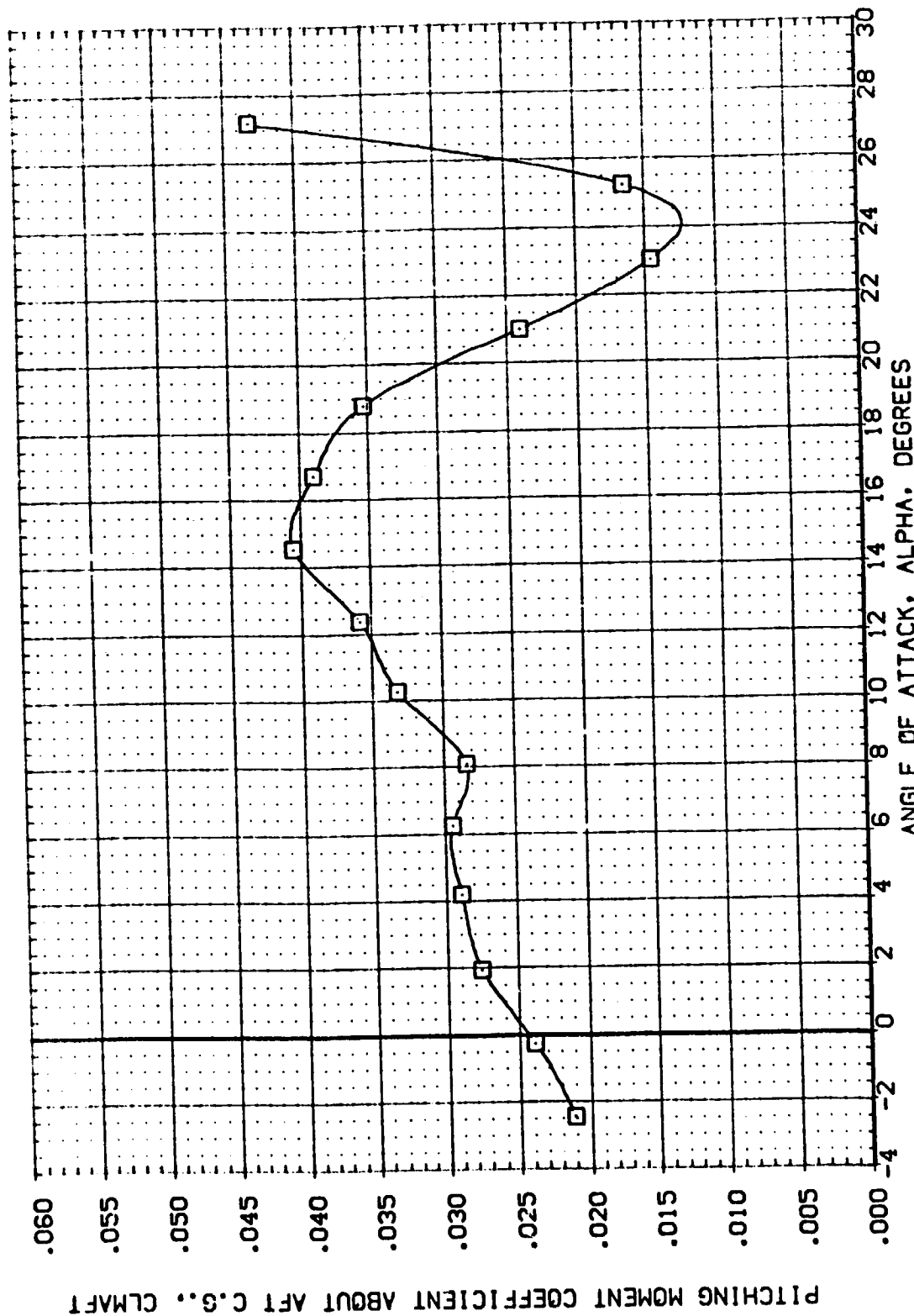


FIGURE 16 139B ORBITER (M00 NOSE) SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 2.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (APPO:1) DATA NOT AVAILABLE
 (APPO:1) DA17.LTP1138.D93 3.(B21C7FS44)(V107E23)(V7R5)

ELEVTR BOFLAP SPOBRK RUDDER
 .000 .000 .000 .000
 .000 .000 .000 .000

REFERENCE INFORMATION
 SREF 87.1560 SQ. IN.
 LREF 19.3545 INCHES
 BREF 14.0502 INCHES
 XMRP 12.5770 INCHES
 YMRP .0000 INCHES
 ZMRP 6.0000 INCHES
 SCALE .0150 SCALE

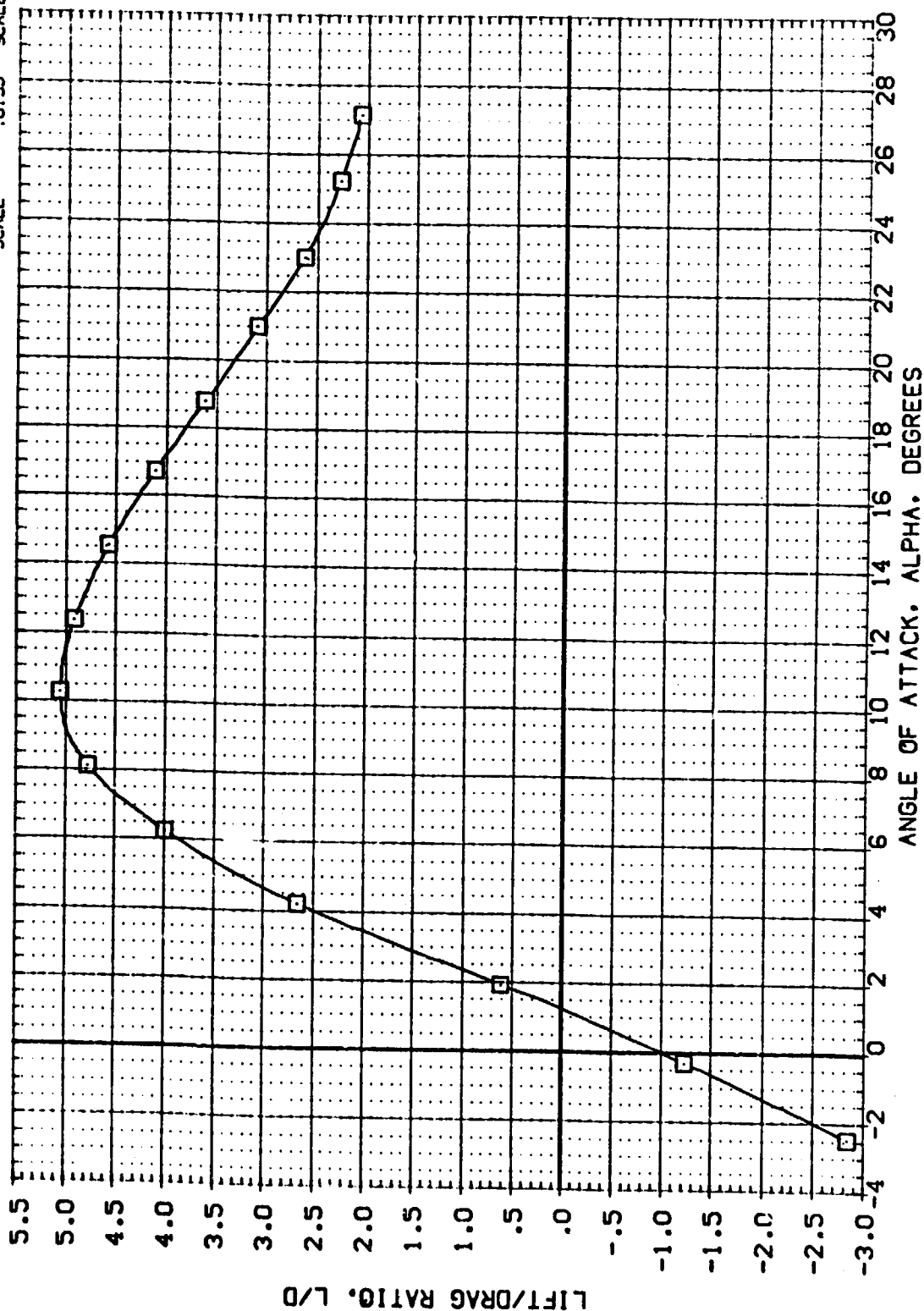


FIGURE 16 139B ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS
 (A)RN/L = 2.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (APPOID1) DATA NOT AVAILABLE
 (APPO11) CA17.LTPT138.DRB 3.(B21C7F5M4)(V107E23)(V7R5)

ELEVTR BOFLAP SPOBRK RUDDER
 .000 .000 .000 .000

REFERENCE INFORMATION
 SREF 87.1560 SQ. IN.
 LREF 19.3545 INCHES
 BREF 14.0502 INCHES
 XMRP 12.5770 INCHES
 YMRP .0000 INCHES
 ZMRP 6.0000 INCHES
 SCALE .0150 SCALE

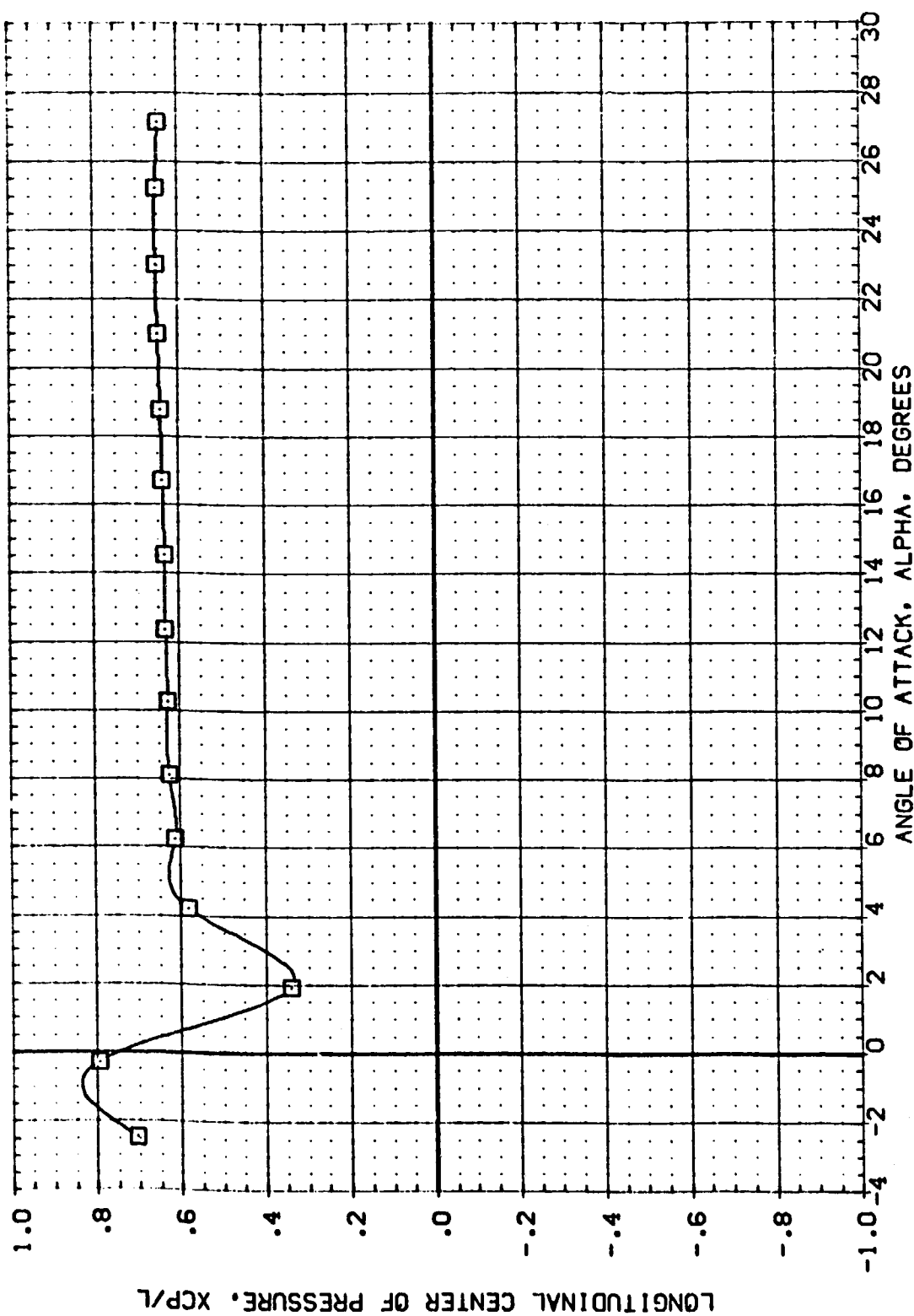


FIGURE 16 1398 ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 2.50

DATA SET SYMBOL: (APPO10) (APPO11)
 CONFIGURATION DESCRIPTION: DATA NOT AVAILABLE
 (APPO10) (APPO11) 0A17.LTPT138.048 3.(821C7F544)(V107E23)(V7R5,

ELEVTR 80FLAP SPOBRK RUDDER REFERENCE INFORMATION
 .000 .000 .000 SREF 87.1560 50.IN.
 .000 .000 .000 LREF 19.3545 INCHES
 .000 .000 .000 XREF 14.0502 INCHES
 .000 .000 .000 YREF 12.5770 INCHES
 .000 .000 .000 ZREF 6.0000 INCHES
 .000 .000 .000 SCALE .0150 SCALE

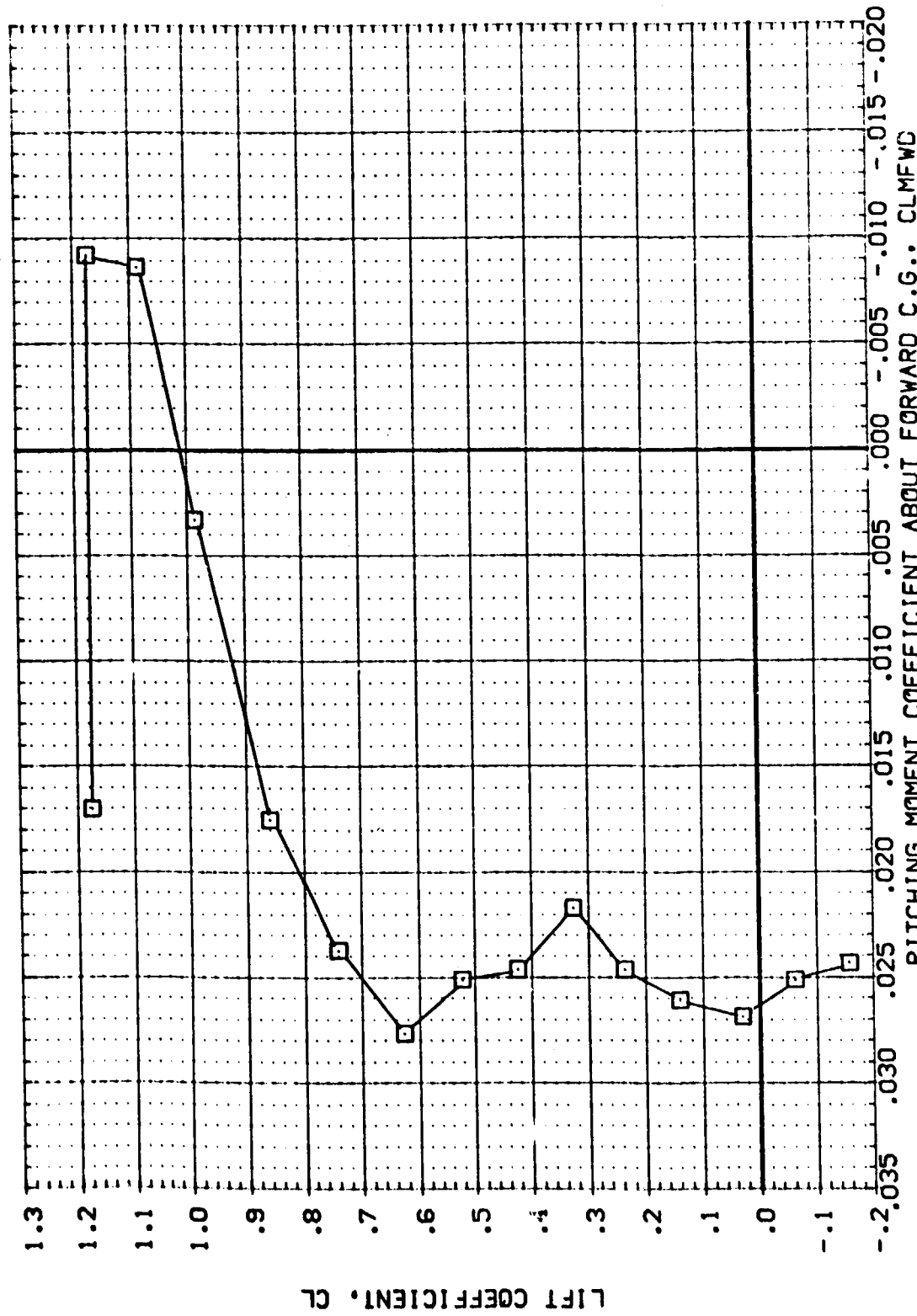


FIGURE 16 139B ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 2.50



DATA SET SYMBOL CONFIGURATION DESCRIPTION
(APPO:0) DATA NOT AVAILABLE
(APPC:1) 0A17.LTPT138.0R8 3.(B21C7F5M4)(V107E23)(V7R5)

ELEVTR BDFLAP SPOBRK RUDDER
.000 .000 .000 .000
.000 .000 .000 .000

REFERENCE INFORMATION
SREF 87.1560 SO.IN.
LREF 19.3345 INCHES
BREF 14.0502 INCHES
XMRP 12.5770 INCHES
YMRP .0000 INCHES
ZMRP 6.0000 INCHES
SCALE .0150 SCALE

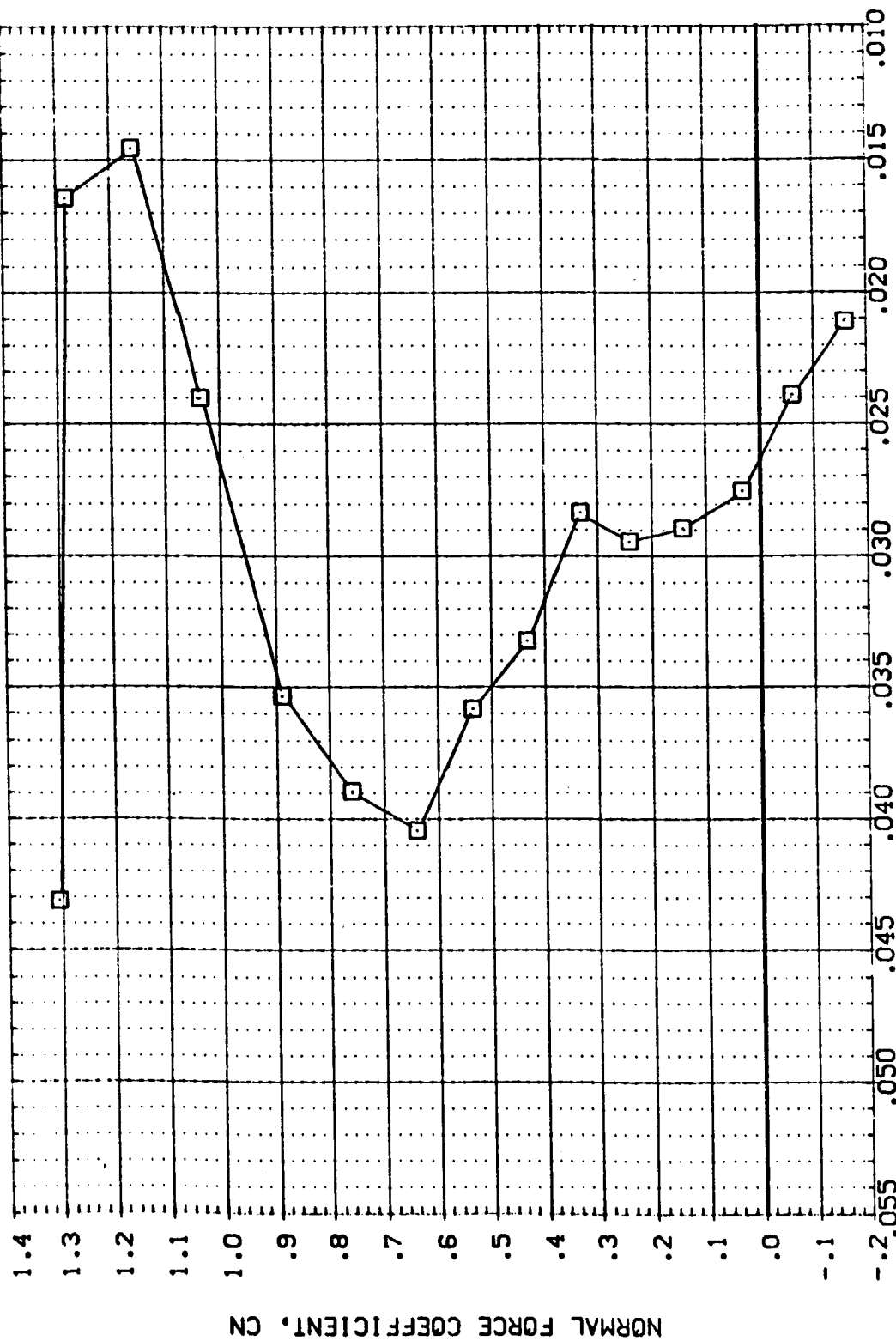


FIGURE 16 139B ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS

(A) RN/L = 2.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (APPC:0) DATA NOT AVAILABLE
 (APPC:1) DA17.LTPT138.DRB 3.(B21C7FS44)(W107EZ3)(V7R5)

ELEVTR BOCLAP SPOBRK RUDDER
 .000 .000 .000 .000
 .000 .000 .000 .000

REFERENCE INFORMATION
 SREF 87.1560 SQ. IN.
 LREF 19.2545 INCHES
 BREF 14.0502 INCHES
 XPRP 12.5770 INCHES
 YPRP .0000 INCHES
 ZPRP 6.0000 INCHES
 SCALE .0150 SCALE

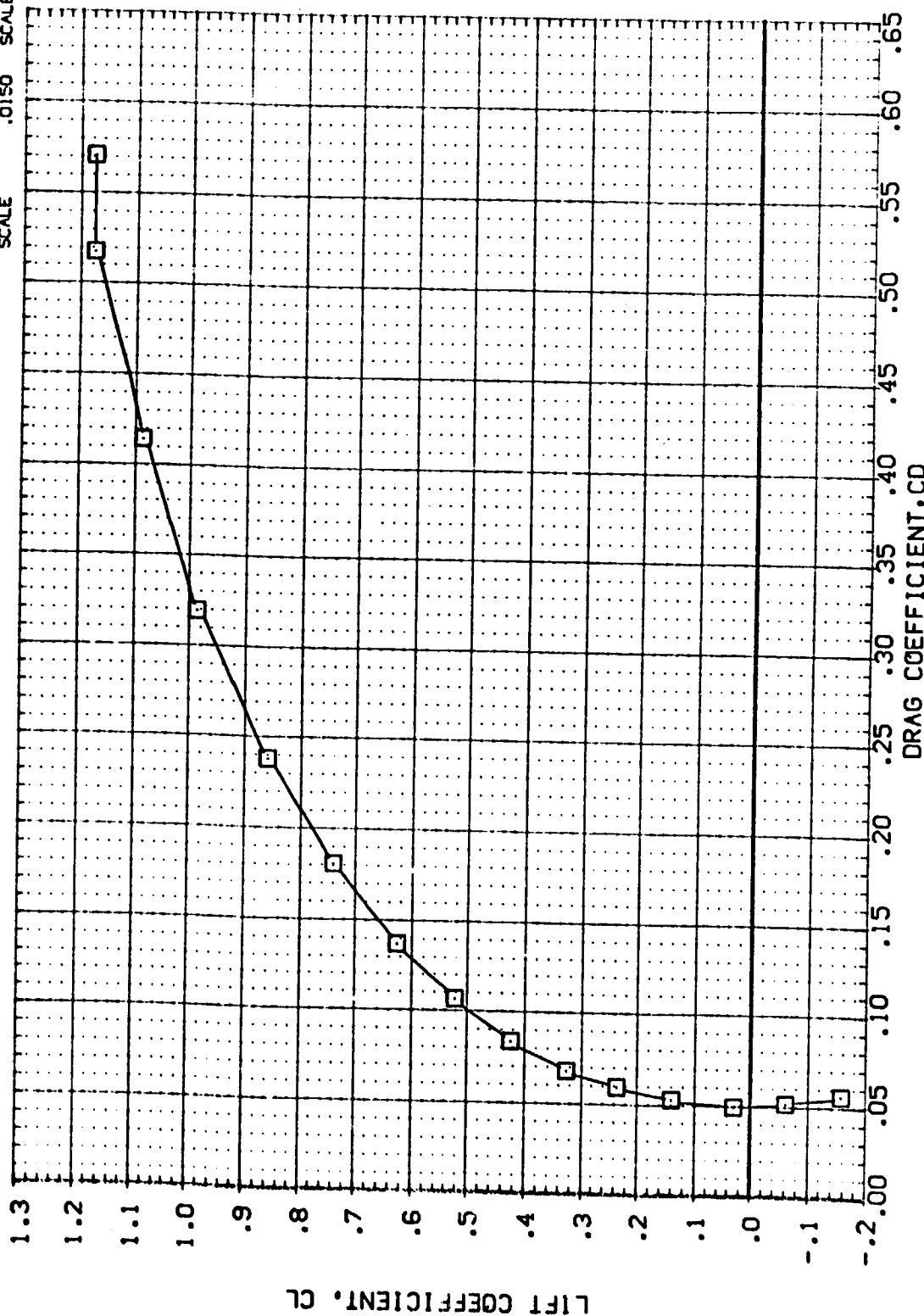


FIGURE 16 139B ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS
 (A)RN/L = 2.50



DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVTR		BOFLAP		SPOBRK		RUDDER		REFERENCE INFORMATION	
(R0010)	□	DATA NOT AVAILABLE		.000	.000	.000	.000	24.920	.000	.000	.000	SREF	87.1560
(R0011)	□	DA17.LPT138.CRB 3. (B21CTFSH4) (V107E23) (V7R5)		.000	.000	.000	.000	.000	.000	.000	.000	LREF	19.3545
												BREF	14.0502
												XMRP	12.5770
												YMRP	.0000
												ZMRP	6.0000
												SCALE	.0150
													INCHES
													INCHES
													INCHES
													SCALE

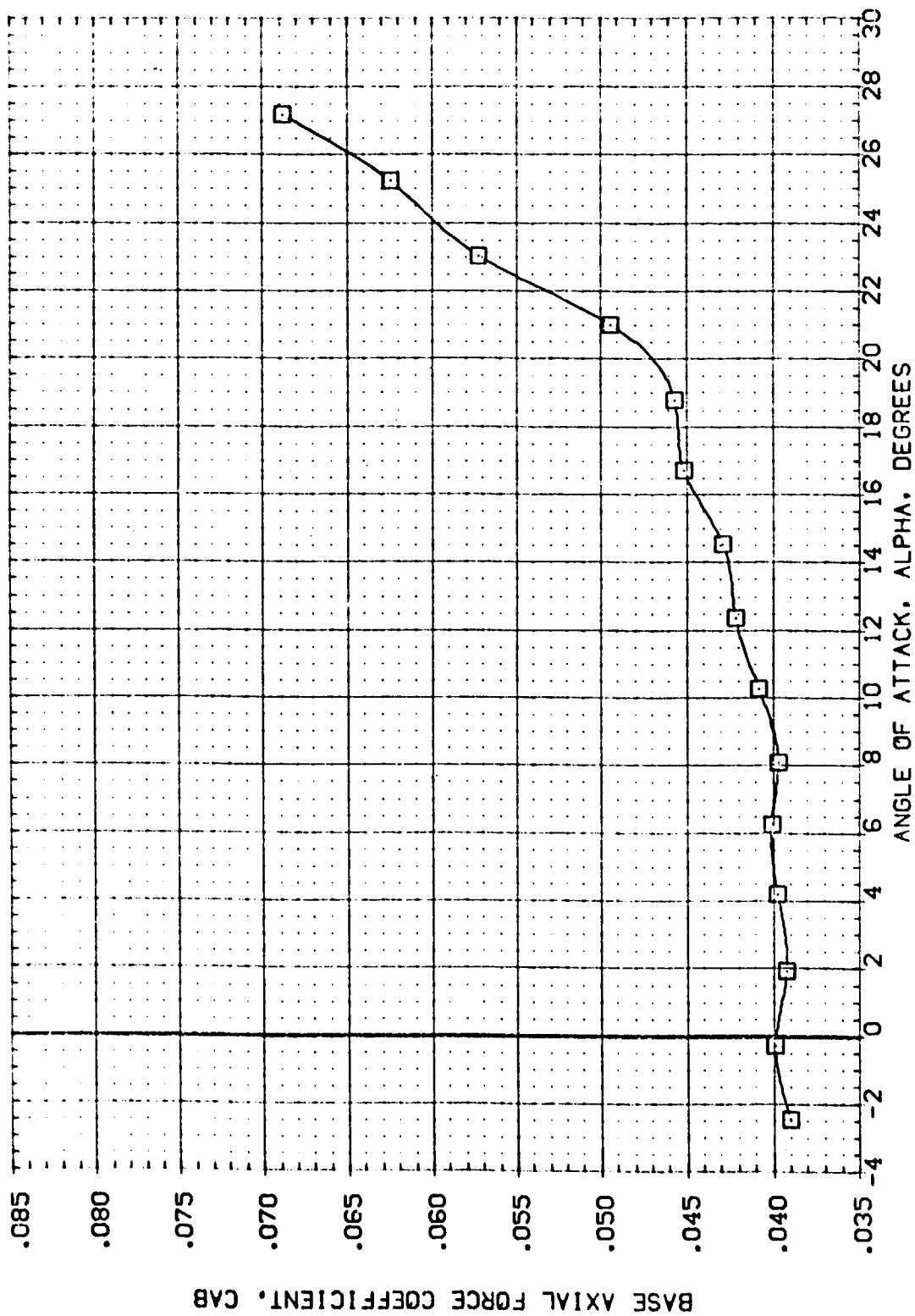


FIGURE 16 1398 ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APPO10)	DA17.LTPT138.ORB 3.(B21C7FSM4)(V107E23)(V7RS)	.000	.000	24.920	.000	SREF 87.1560 SO.IN.
(APPO11)	DA17.LTPT138.ORB 3.(B21C7FSM4)(V107E23)(V7RS)	.000	.000	.000	.000	LREF 19.3545 INCHES
						BREF 14.0502 INCHES
						XMRP 12.5770 INCHES
						YMRP 6.0000 INCHES
						ZMRP 6.0000 INCHES
						SCALE .0150

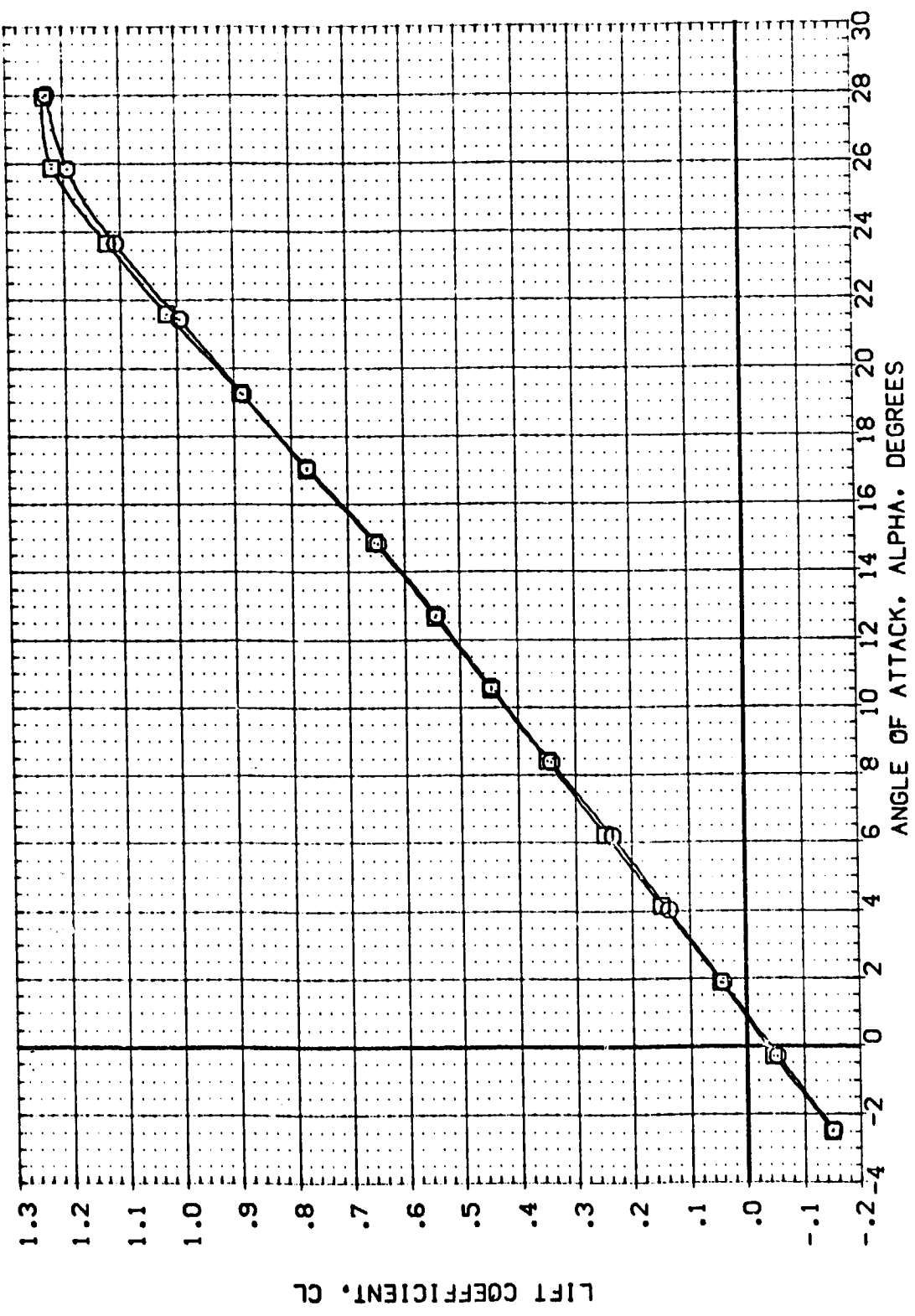


FIGURE 16 139B ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS

(A) RN/L = 4.70

DATA SET SYMBOL CONFIGURATION DESCRIPTION ELEVTR BOFLAP SPOBRK RUDDER REFERENCE INFORMATION

(AP010)	CA17.LTPT138.CRB 3.(B21C7FSM4)(V107E23)(V7RS)	.000	.000	.000	.000	SREF	87.1560	SO.IN.
(AP011)	CA17.LTPT138.CRB 3.(B21C7FSM4)(V107E23)(V7RS)	.000	.000	.000	.000	LREF	19.3545	INCHES
						BREF	14.0552	INCHES
						XMRP	12.5770	INCHES
						YMRP	.0000	INCHES
						ZMRP	6.0000	INCHES
						SCALE	.0130	SCALE

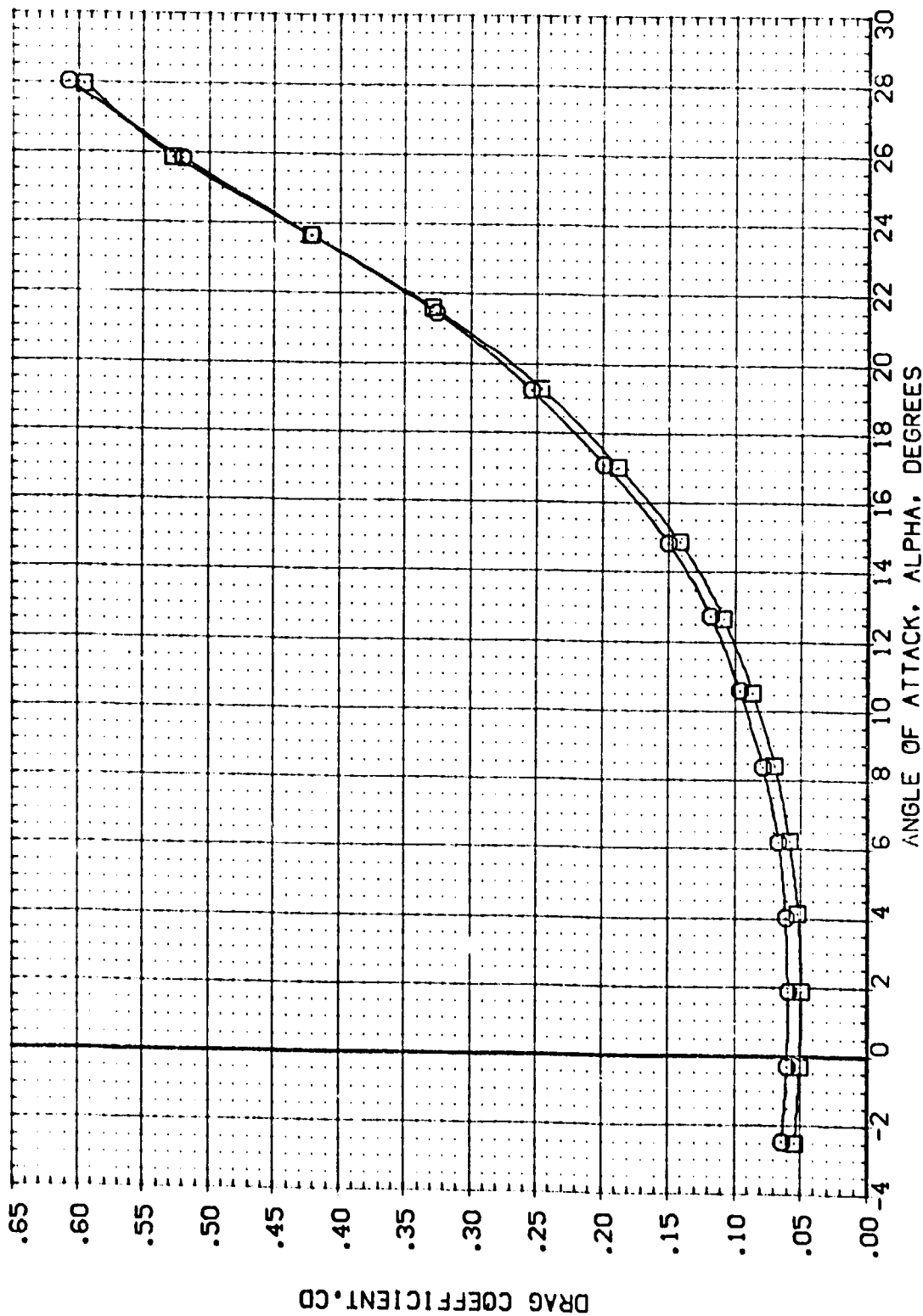


FIGURE 16 139B ORBITER (MCD NOSE) SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(APP010) 0017.LTPT138.0R8 3.(B21C7FSM4)(V107E23)(V7RS)
 (APP011) 0017.LTPT138.0R8 3.(B21C7FSM4)(V107E23)(V7RS)

ELEVTR BOFLAP SPOBRK RUDDER
 .000 .000 .000 .000
 .000 24.920 .000

REFERENCE INFORMATION
 SREF 87.1560 50.1N.
 LREF 19.3545 INCHES
 BREF 14.0502 INCHES
 XMRP 12.5770 INCHES
 YMRP .0000 INCHES
 ZMRP 6.0000 INCHES
 SCALE .0150 SCALE

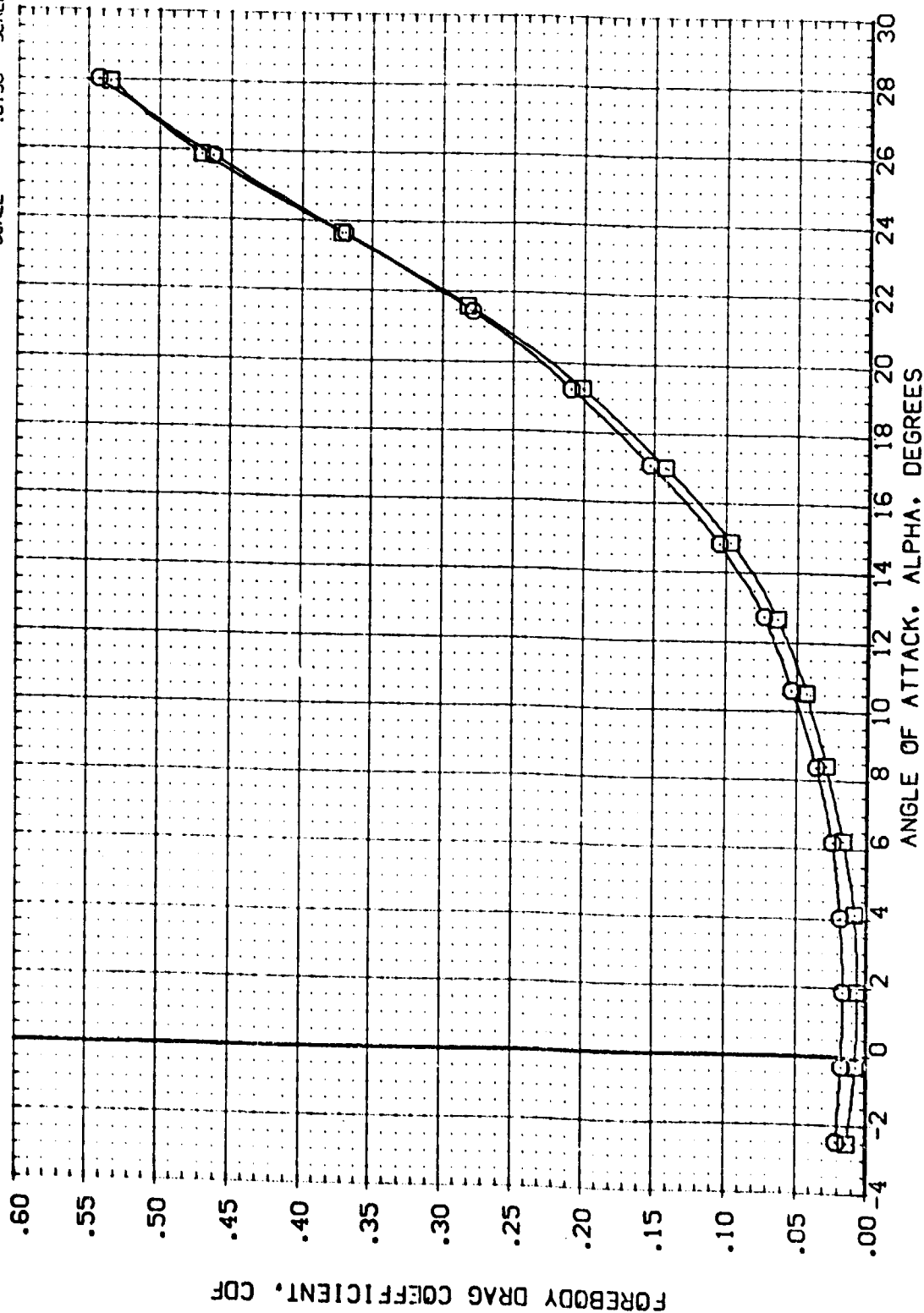


FIGURE 16 139B ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL: CA:7.4L PT138 ORB 3. (B21C7E5M4) (V107E23) (V7RS)
 (AFCG:1) CA:7.4L PT138 ORB 3. (B21C7E5M4) (V107E23) (V7RS)
 CONFIGURATION DESCRIPTION: CA:7.4L PT138 ORB 3. (B21C7E5M4) (V107E23) (V7RS)
 REFERENCE INFORMATION: SREF 87.1560 SO. IN. 50. IN.
 LREF 19.3545 INCHES
 BREF 14.0502 INCHES
 XMRP 12.5770 INCHES
 YMRP .0000 INCHES
 ZMRP 6.0000 INCHES
 SCALE .0150

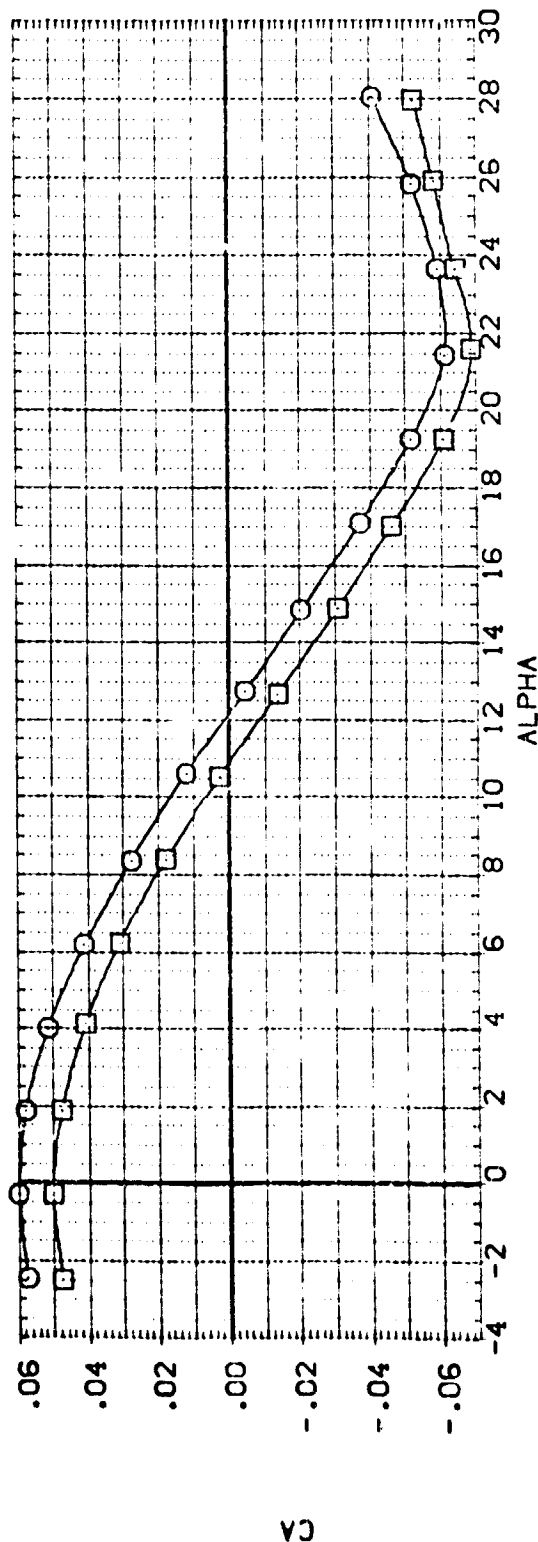
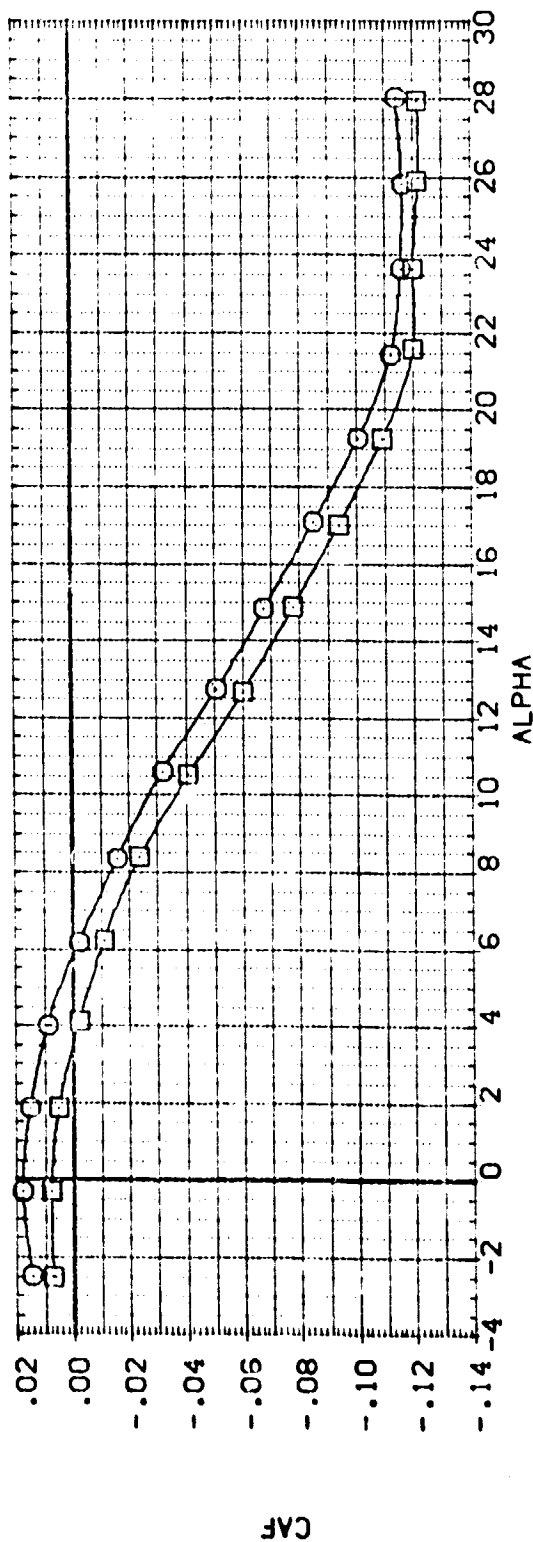


FIGURE 16 139B ORBITER (N30 NOSE) SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL: CA17.LTPT138.CRB 3.(B21C7FSM4)(V107E23)(V7RS)
 (APPC:3) CA17.LTPT138.CRB 3.(B21C7FSM4)(V107E23)(V7RS)
 (APPC:1)

CONFIGURATION DESCRIPTION

ELEVTR .000 RUDDER .000
 .000 .000 .000 .000

REFERENCE INFORMATION
 SREF 87.1560 SQ. IN.
 LREF 19.3645 INCHES
 BREF 14.0502 INCHES
 XMRP 12.5770 INCHES
 YMRP .0000 INCHES
 ZMRP 6.0000 INCHES
 SCALE .0150

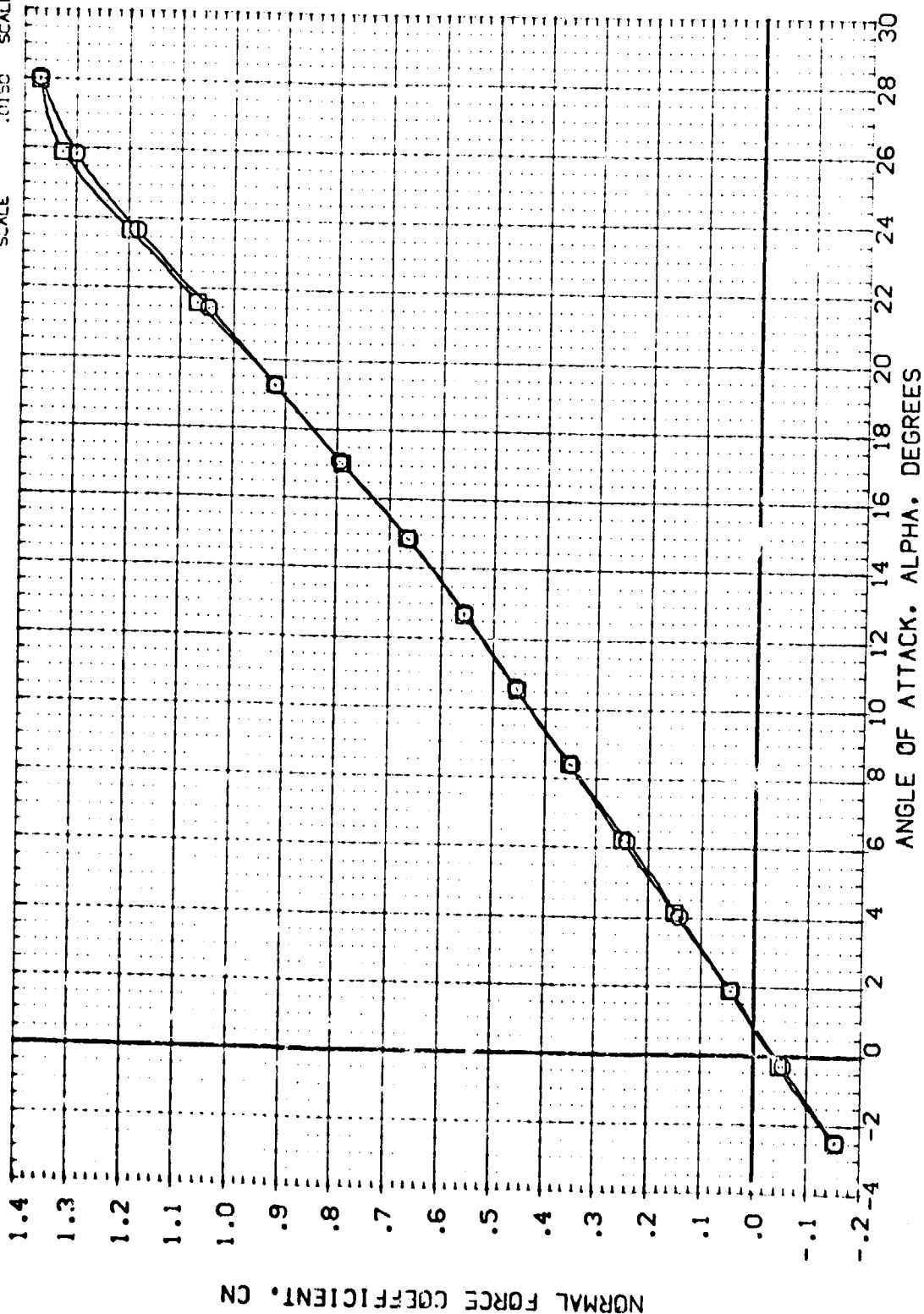


FIGURE 16 1398 ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVTR		BOFLAP		SPDRBK		RUDDER		REFERENCE INFORMATION	
(APPCID)	(A-PCID)	0A17.LTPT138.DRB	3.1821C7FSM4	(V107E23)	(V7RS)	.000	.000	.000	24.920	.000	.000	SREF	87.1560
		0A17.LTPT138.DRB	3.1821C7FSM4	(V107E23)	(V7RS)	.000	.000	.000	.000	.000	.000	LREF	19.3545
												BREF	14.0502
												YMRP	12.5770
												ZMRP	.0000
												SCALE	6.0000
													INCHES
													INCHES
													SCALE
													.0150

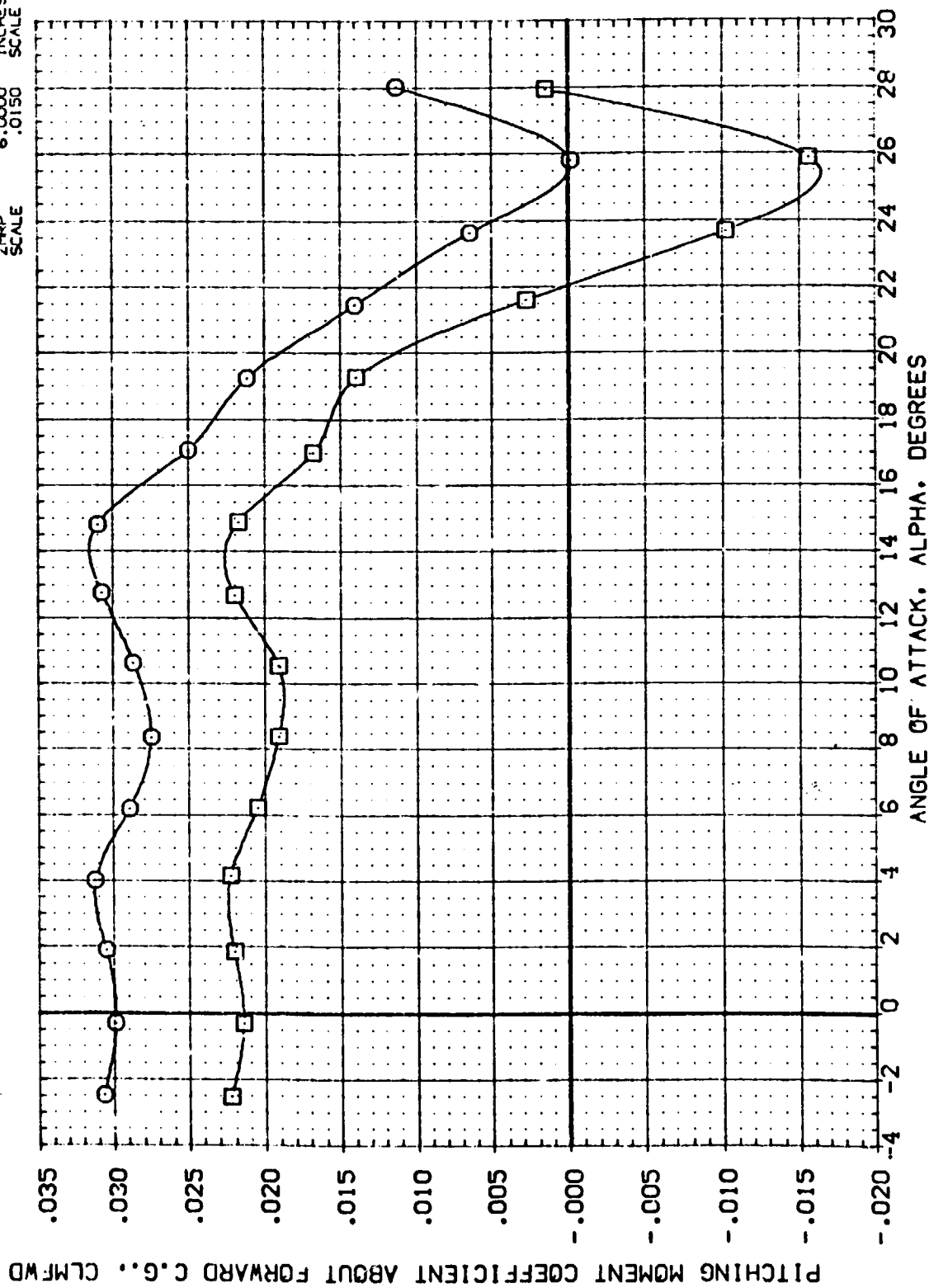


FIGURE 16 1398 ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	LOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APPO10)	0A17.L1PT138.0R8 3.(B21C7F5M4)(V107E23)(V7R5)	.000	.000	24.920	.000	SREF 87.1560 SO.IN
(APPO11)	0A17.L1PT138.0R8 3.(B21C7F5M4)(V107E23)(V7R5)	.000	.000	.000	.000	LREF 19.3545 INCHES
						BREF 14.0502 INCHES
						XMRP 12.5770 INCHES
						YMRP .0000 INCHES
						ZMRP 6.0000 INCHES
						SCALE .0150

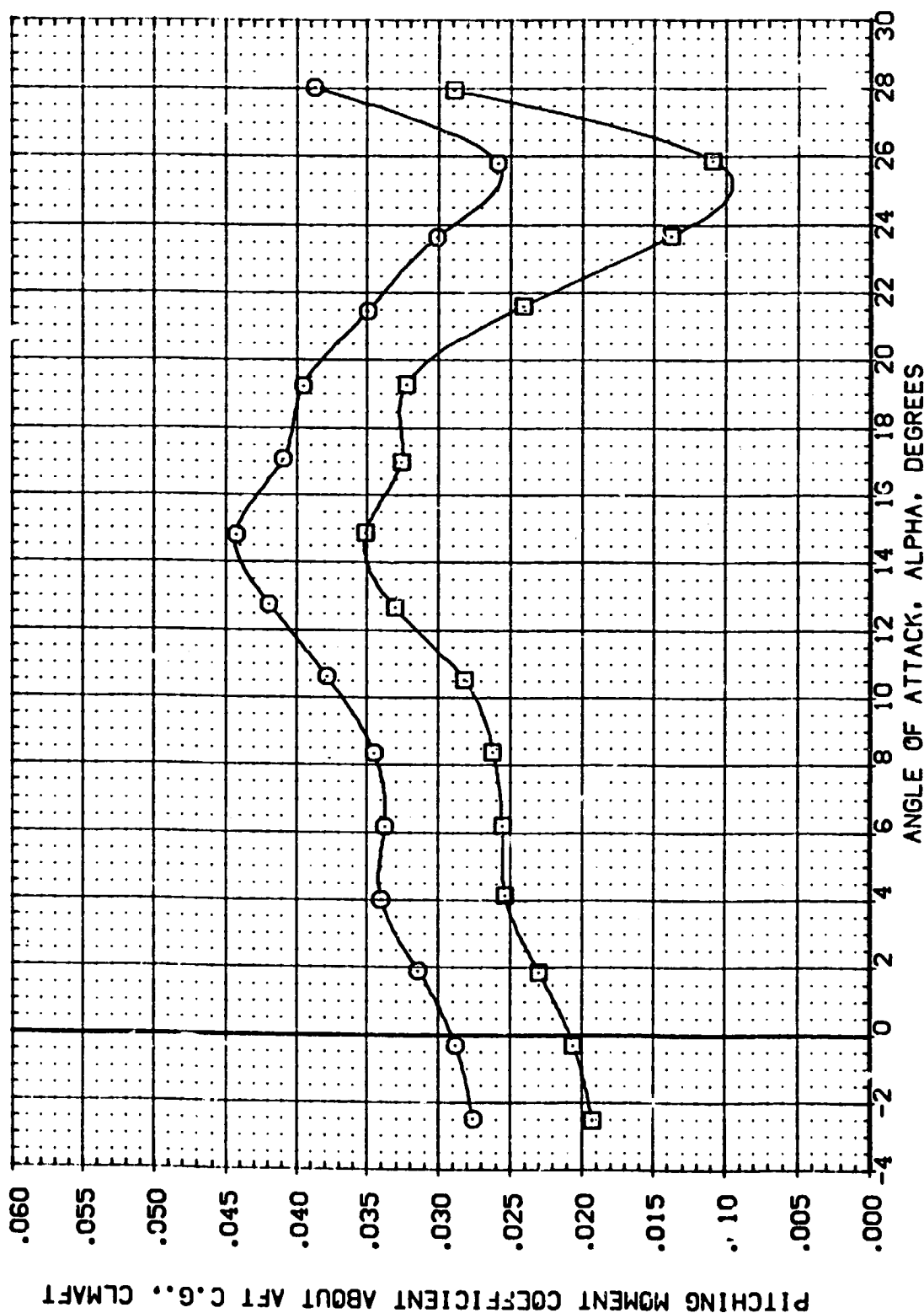


FIGURE 16 1398 ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 4.70



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOELAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APPOID)	DA17.LTPT138.CRB 3.(B21C7FSM4)(V107E23)(V7R5)	.000	.000	.000	.000	SREF 87.1560 SO.IN.
(APPOID)	DA17.LTPT138.CRB 3.(B21C7FSM4)(V107E23)(V7R5)	.000	.000	.000	.000	LREF 19.3545 INCHES
						BREF 14.0502 INCHES
						XMRRP 12.5770 INCHES
						YMRRP 6.0000 INCHES
						ZMRRP 6.0000 INCHES
						SCALE .0150

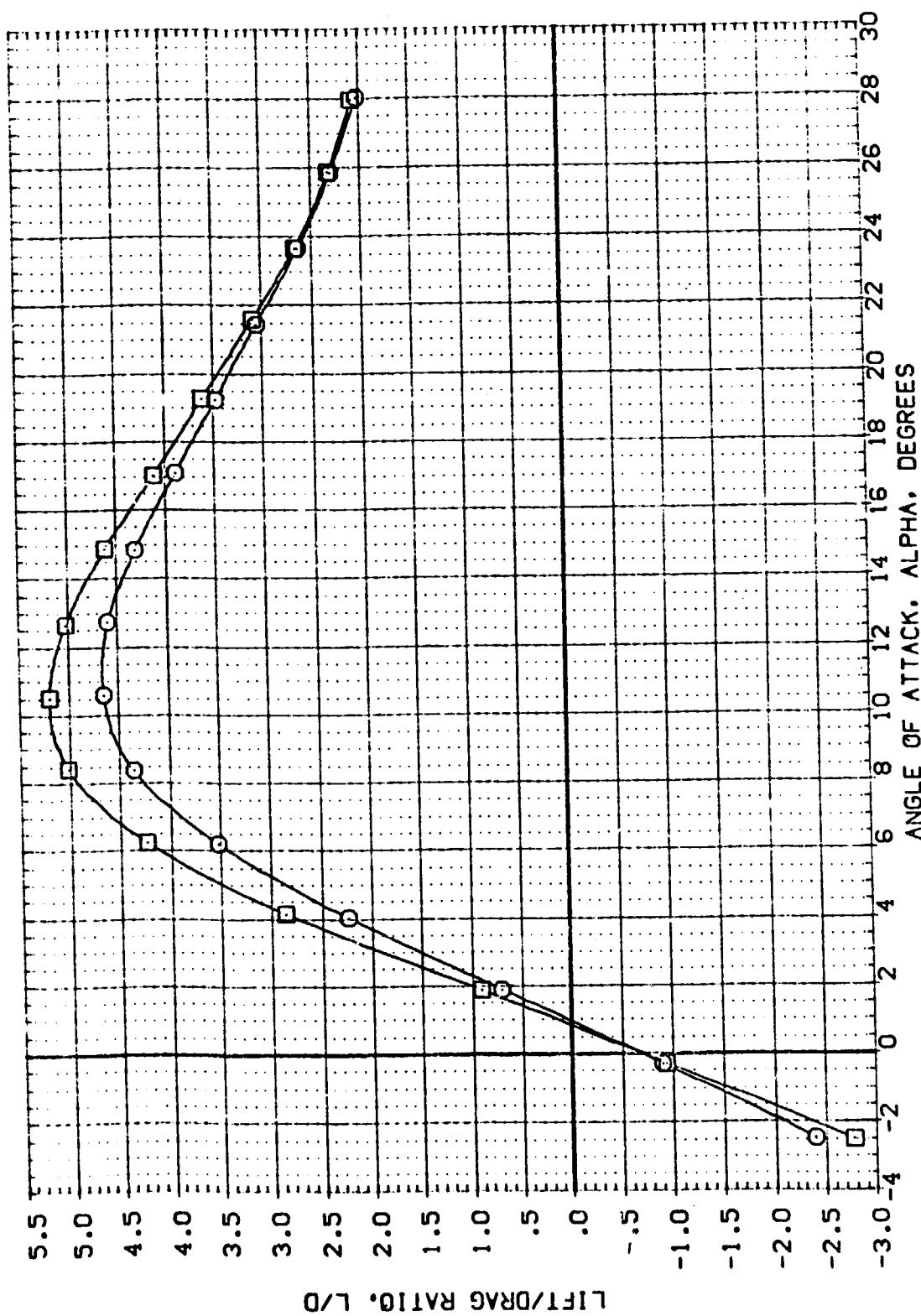


FIGURE 16 139B ORBITER (100 NOSE) SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL CONFIGURATION DESCRIPTION REFERENCE INFORMATION

(APPO:0) CA17.LTPT138.ORB 3.(B2IC7FSM4)(V107E23)(V7RS) SREF 87.1560 50. IN

(APPO:1) CA17.LTPT138.ORB 3.(B2IC7FSM4)(V107E23)(V7RS) LREF 19.3545 INCHES

(APPO:2) CA17.LTPT138.ORB 3.(B2IC7FSM4)(V107E23)(V7RS) BREF 14.0502 INCHES

(APPO:3) CA17.LTPT138.ORB 3.(B2IC7FSM4)(V107E23)(V7RS) XREF 12.5770 INCHES

(APPO:4) CA17.LTPT138.ORB 3.(B2IC7FSM4)(V107E23)(V7RS) YREF 6.0000 INCHES

(APPO:5) CA17.LTPT138.ORB 3.(B2IC7FSM4)(V107E23)(V7RS) ZREF 6.0000 INCHES

(APPO:6) CA17.LTPT138.ORB 3.(B2IC7FSM4)(V107E23)(V7RS) SCALE .0150 SCALE

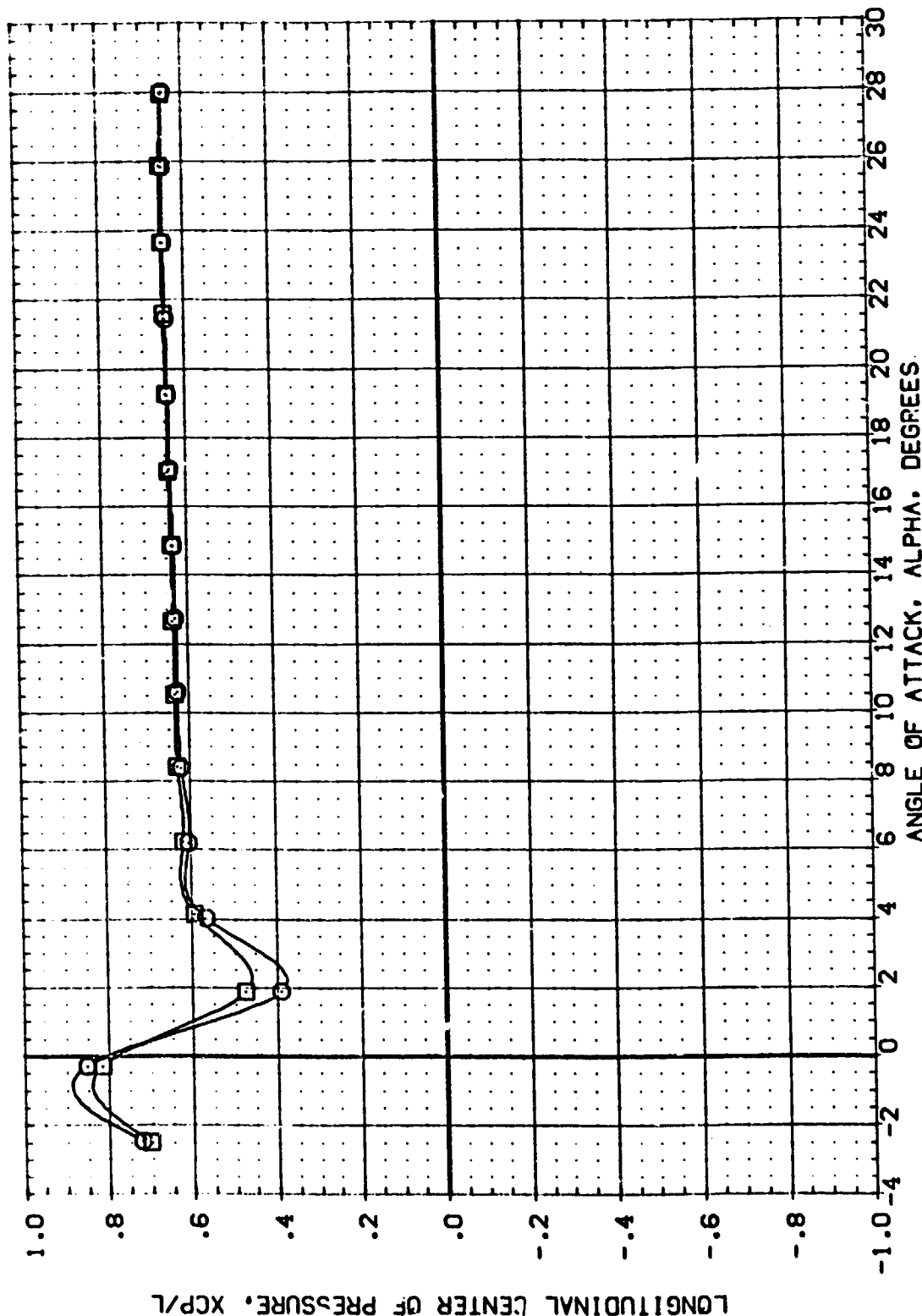


FIGURE 16 1398 ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS

(AJRN/L = 4.70



DATA SET SYMBOL: 0A17,LTPT138,CRB 3.(B21C7FSM4)(V107E23)(V7RS)
 (APPC10) 0A17,LTPT138,CRB 3.(B21C7FSM4)(V107E23)(V7RS)
 (APPC11)

CONFIGURATION DESCRIPTION

ELEVTR: .000
 BOFLAP: .000
 SPDBRK: 24.920
 RUDDER: .000

REFERENCE INFORMATION

SREF: 87.1560 SQ. IN.
 LREF: 19.3545 INCHES
 BREF: 14.0502 INCHES
 XMRP: 12.5770 INCHES
 YMRP: .0000 INCHES
 ZMRP: 6.0000 INCHES
 SCALE: .0150

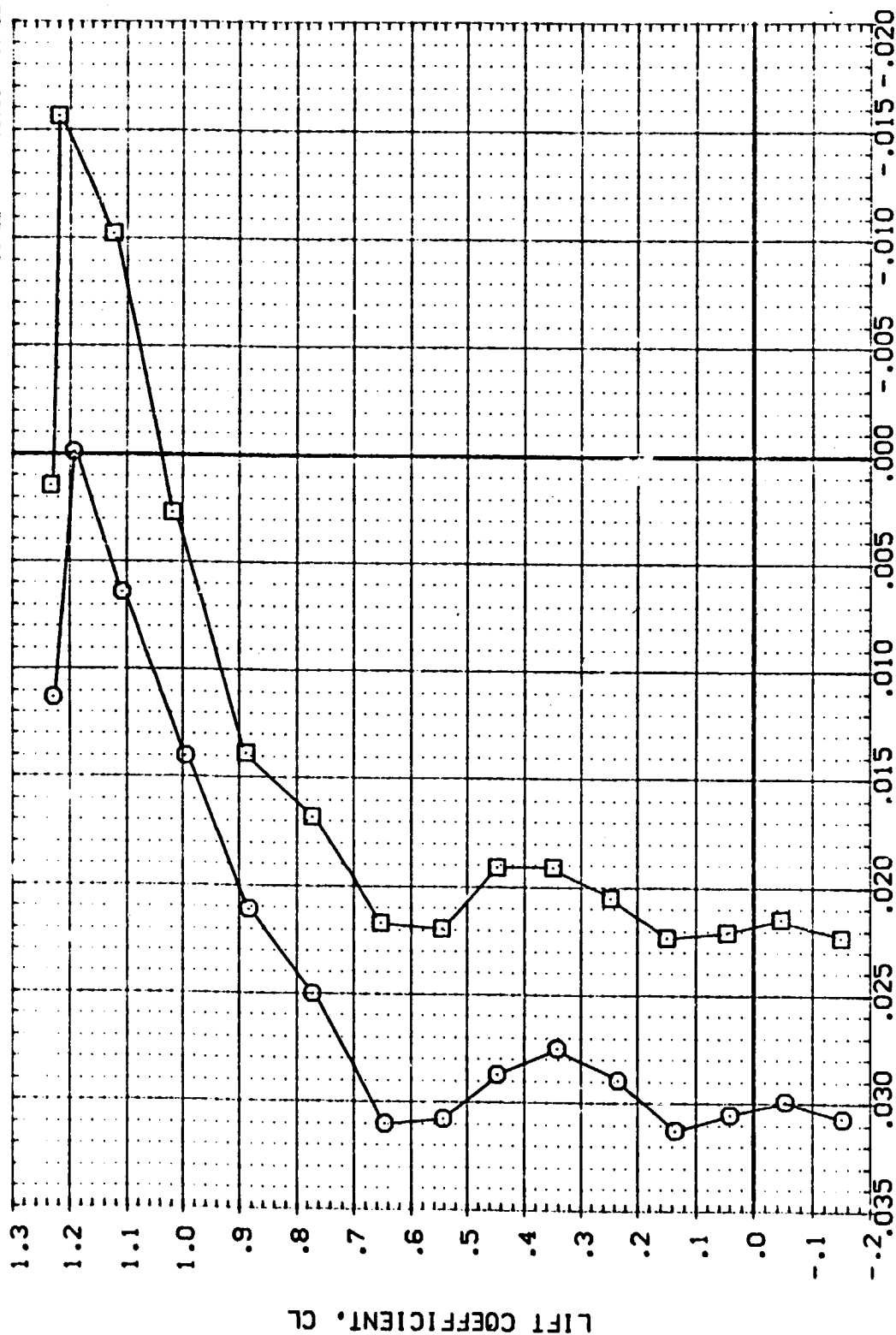


FIGURE 16 1398 ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL: CA17.LIPT138.ORB 3.(B2IC7FSM4)(V107E23)(V7RS)
 (APPRO10) CA17.LIPT138.ORB 3.(B2IC7FSM4)(V107E23)(V7RS)
 (APPRO11)

CONFIGURATION DESCRIPTION

REFERENCE INFORMATION

SRF	87.1560	SO IN.
LR	19.3545	INCHES
BR	14.0502	INCHES
YMR	12.5770	INCHES
ZMR	6.0000	INCHES
SCALE	.0150	SCALE

ELEVTR .000 BOFLAP .000 SPOBRK .000 RUDDER .000

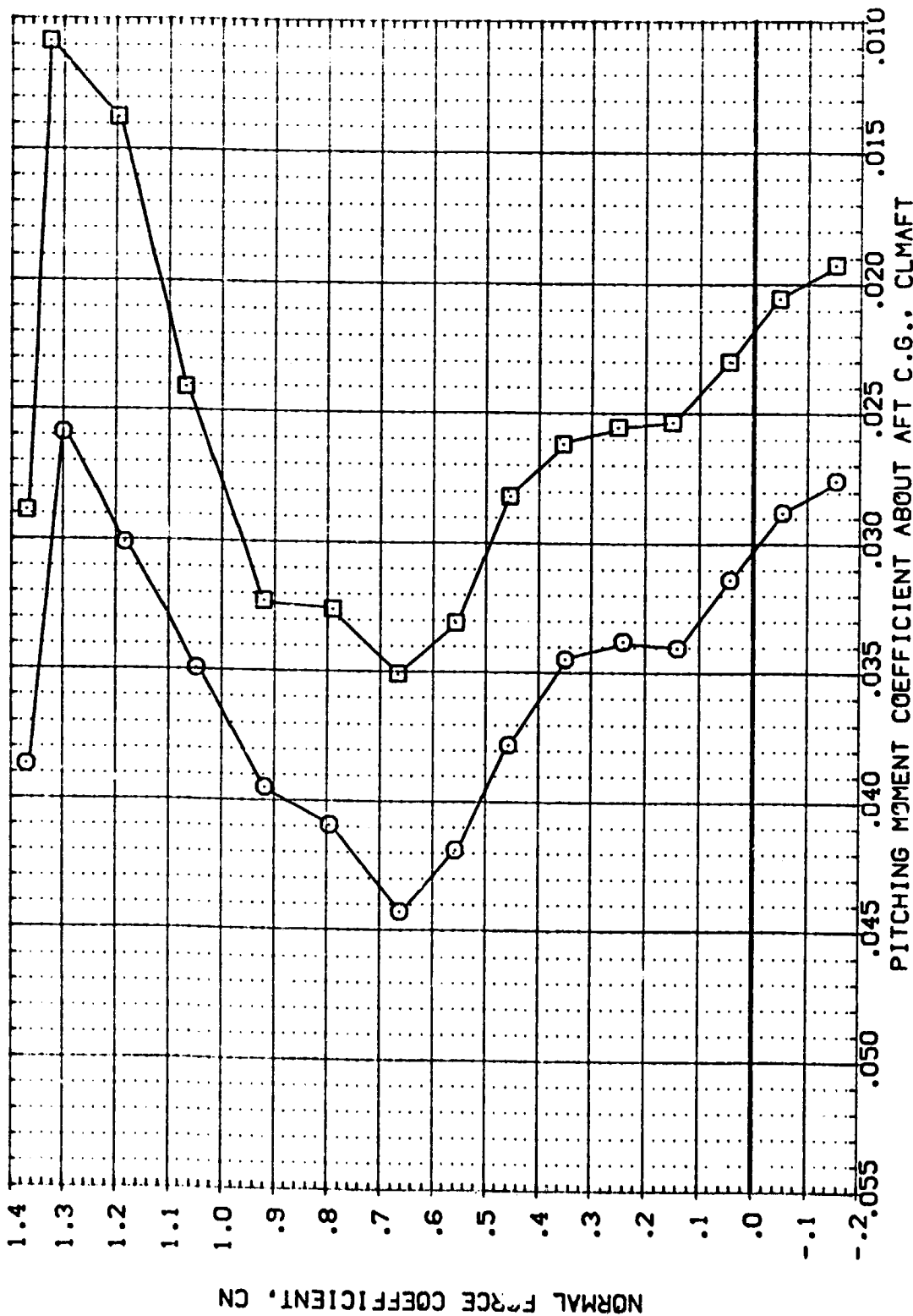


FIGURE 16 139B ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 4.70



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION	
(APPROD)	DA17ALTPT138.098 3. (B21C7F5M4) (V107E23) (V7R5)	.000	.000	24.920	.000	SREF	87.1560 SQ. IN.
(APPROD)	DA17ALTPT138.098 3. (B21C7F5M4) (V107E23) (V7R5)	.000	.000	.000	.000	LREF	19.3345 INCHES
						BREF	14.0502 INCHES
						XMRP	12.5770 INCHES
						YMRP	.0000 INCHES
						ZMRP	6.0000 INCHES
						SCALE	.0150

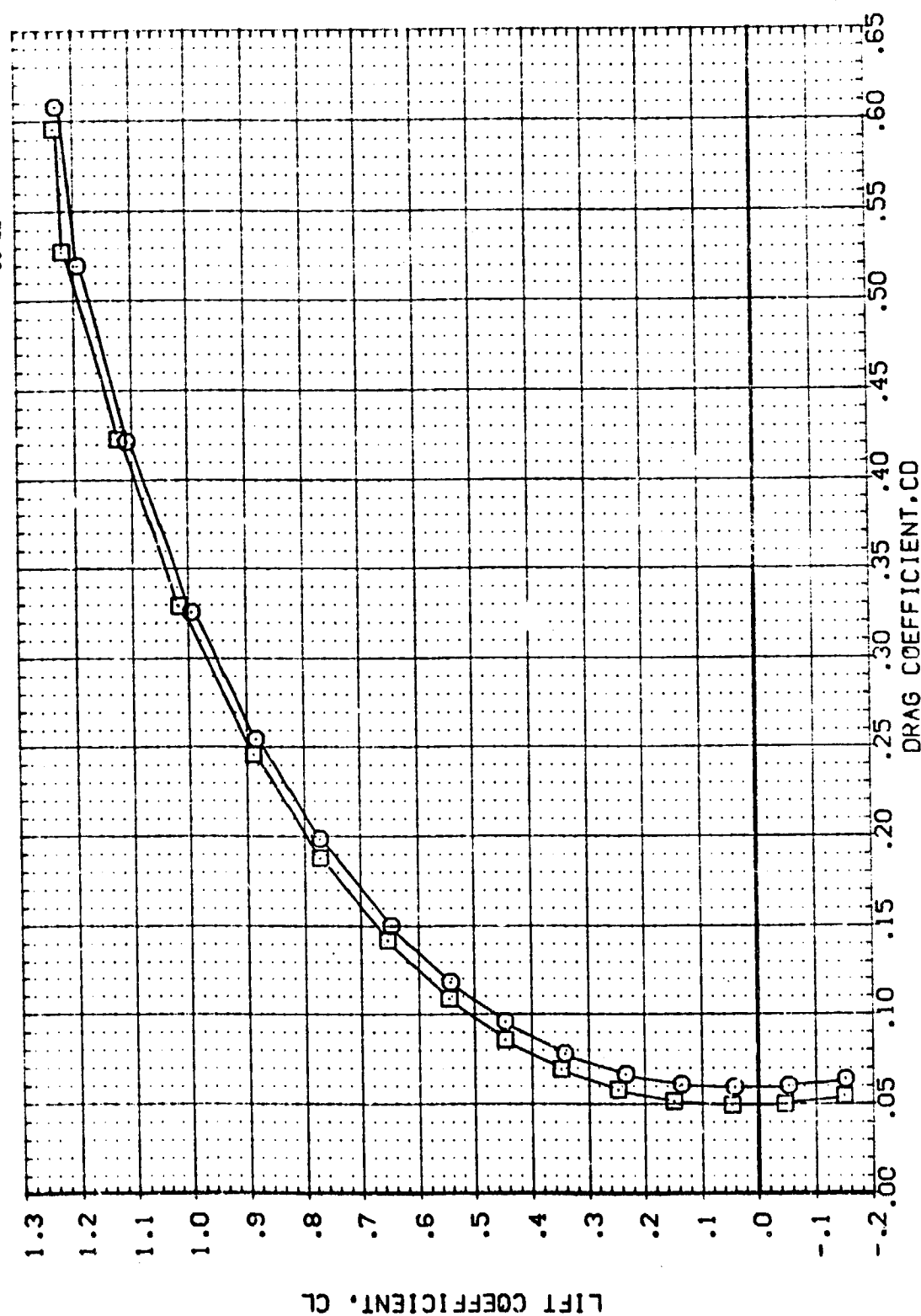


FIGURE 16 1398 ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS
(AJRN/L = 4.70)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	S'DBRK	RUDDER	REFERENCE INFORMATION
(RPP010)	CA17.LTPT138.0R8 3.(B21C7FSM4)(V107E23)(V7RS)	.000	.000	24.920	.000	SREF 87.1560 SO.IN.
(RPP011)	CA17.LTPT138.0R8 3.(B21C7FSM4)(V107E23)(V7RS)	.000	.000	.000	.000	LREF 19.3545 INC-ES
						BREF 14.0502
						XMRP 12.5770 INCHES
						YMRP .0000 INCHES
						ZMRP 6.0000 INCHES
						SCALE .0150

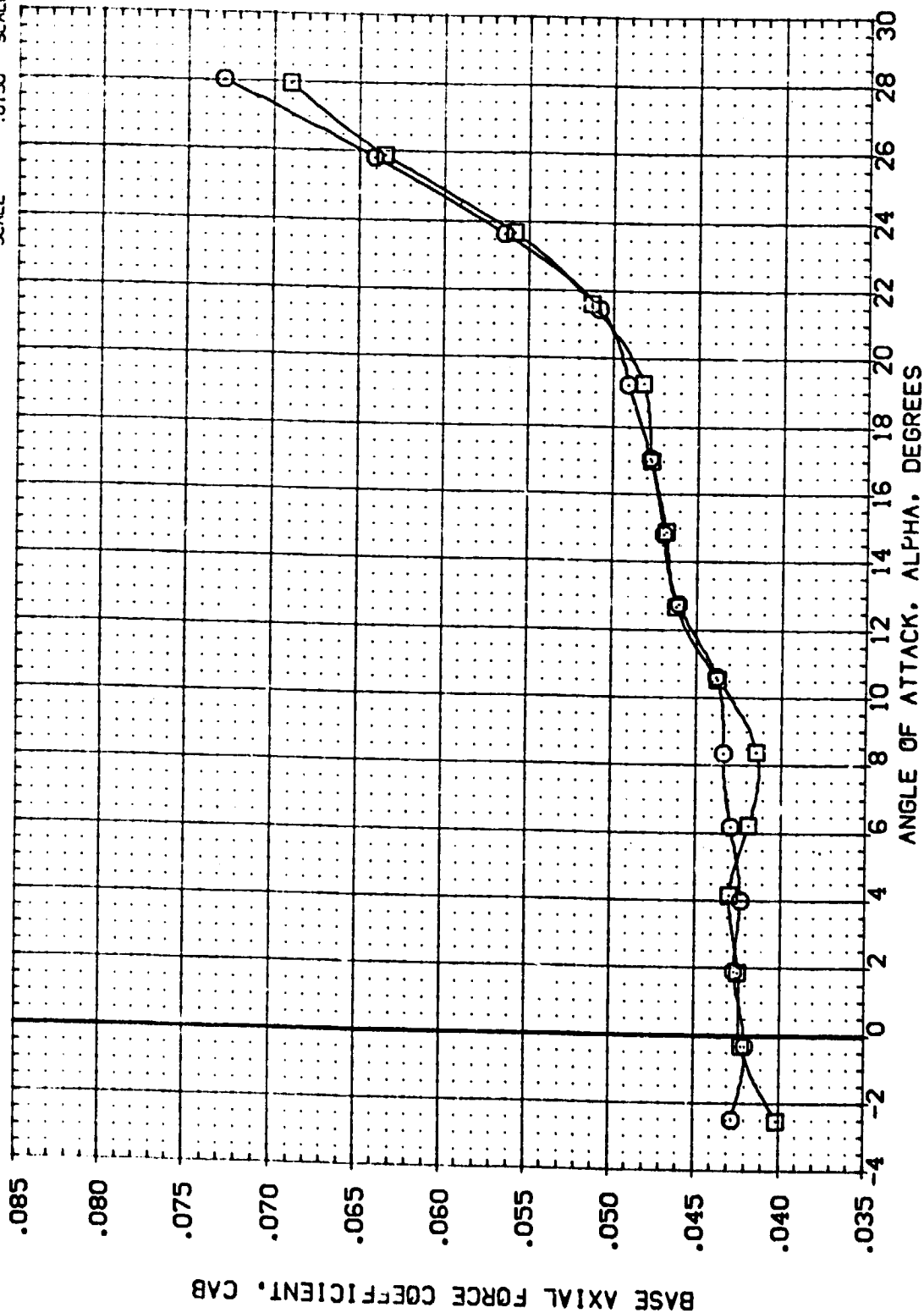


FIGURE 16 139B ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS

CAJRN/L = 4.70



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APPRO10)	CA17-LTPT138-058 3.(B21C7FSM4)(V107E23)(V7R5)	.000	.000	24.920	.000	SREF 87.1560 50.1N
(APPC11)	CA17-LTPT138-058 3.(B21C7FSM4)(V107E23)(V7R5)	.000	.000	.000	.000	LREF 19.3545 INCHES
						BREF 14.0502 INCHES
						XMRP 12.5770 INCHES
						YMRP 6.0000 INCHES
						ZMRP 6.0000 INCHES
						SCALE .0150

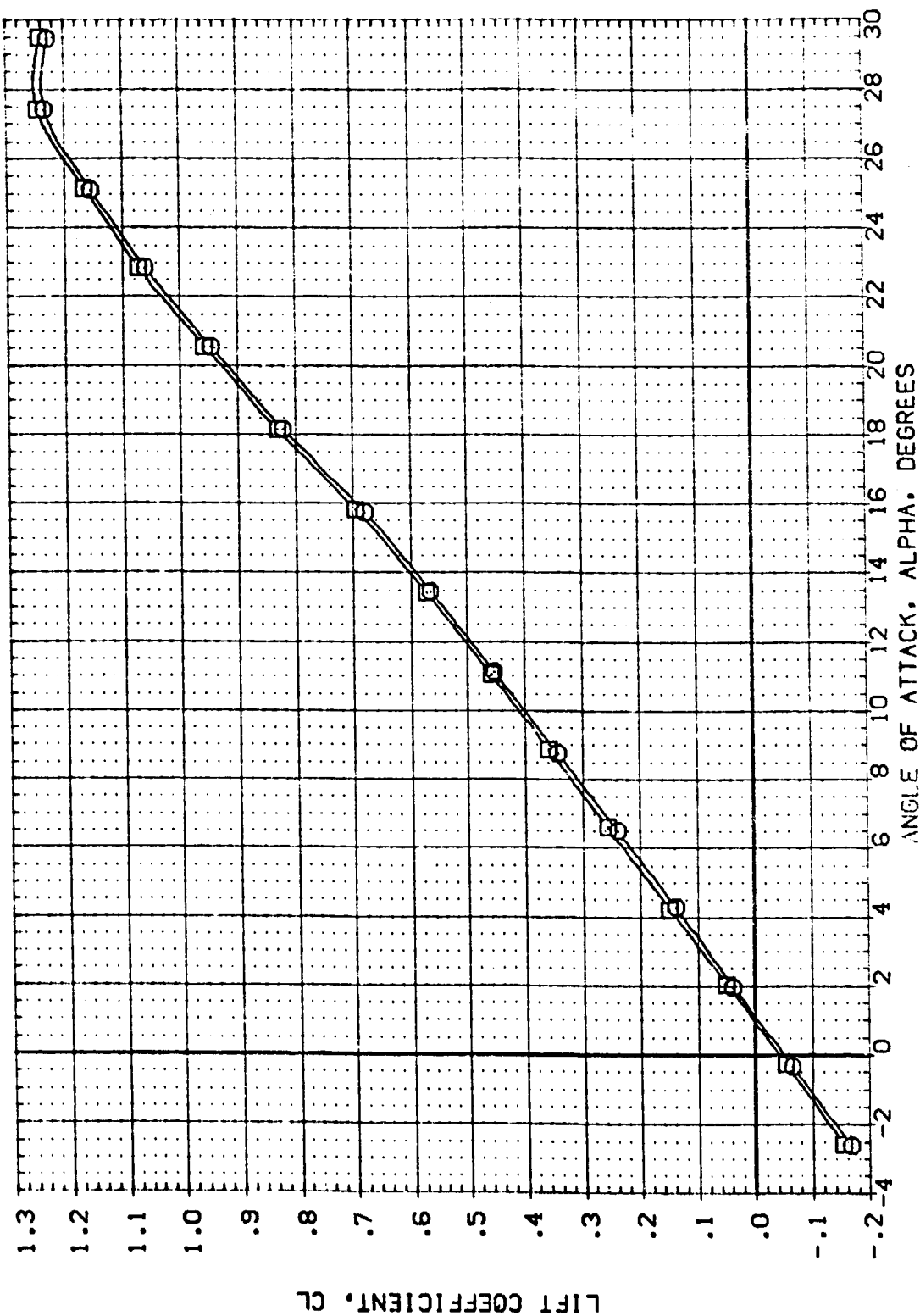


FIGURE 16 139B ORBITER (AND NOSE) SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL: 8
 CONFIGURATION DESCRIPTION: 0A17.LTPT138.ORB 3.(B21C7FSM4)(V107E23)(V7RS)
 0A17.LTPT138.ORB 3.(B21C7FSM4)(V107E23)(V7RS)
 REFERENCE INFORMATION:
 SREF: 87.1560 SO, IN: 50. IN:
 LREF: 19.3545 INCHES
 BREF: 14.0502 INCHES
 XMRP: 12.5770 INCHES
 YMRP: .0000 INCHES
 ZMRP: 6.0000 INCHES
 SCALE: .0150

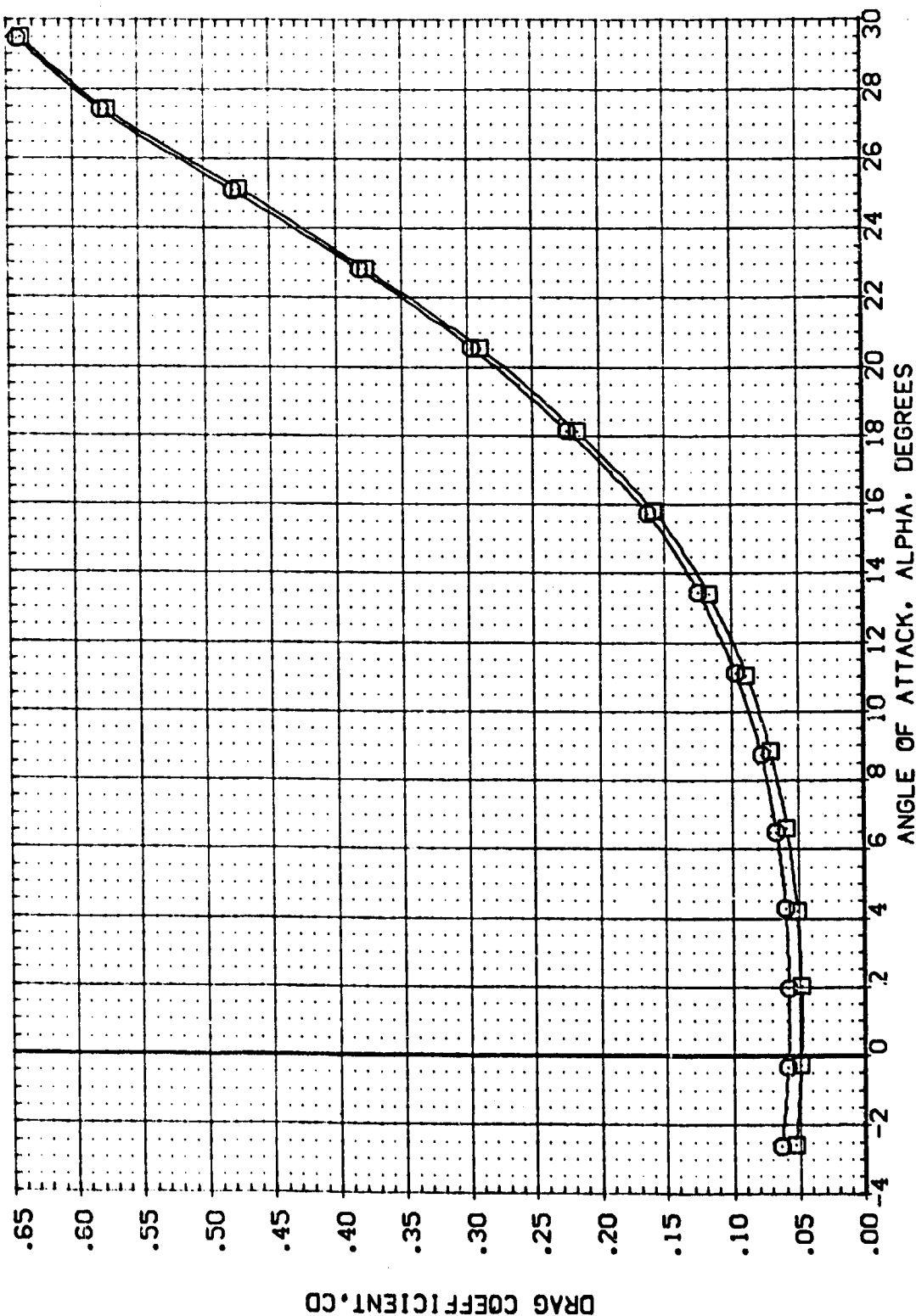


FIGURE 16 1398 ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 10.00



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APPO:0)	CA17.LIPT138.DRB 3.(B21C7FSM4)(V107E23)(V7RS)	.000	.000	24.920	.000	SREF 87.1560 SO.IN.
(APPO:1)	CA17.LIPT138.DRB 3.(B21C7FSM4)(V107E23)(V7RS)	.000	.000	.000	.000	LREF 19.3545 INCHES
						BREF 14.0502 INCHES
						XMRP 12.5770 INCHES
						YMRP .0000 INCHES
						ZMRP 6.0000 INCHES
						SCALE .0150 SCALE

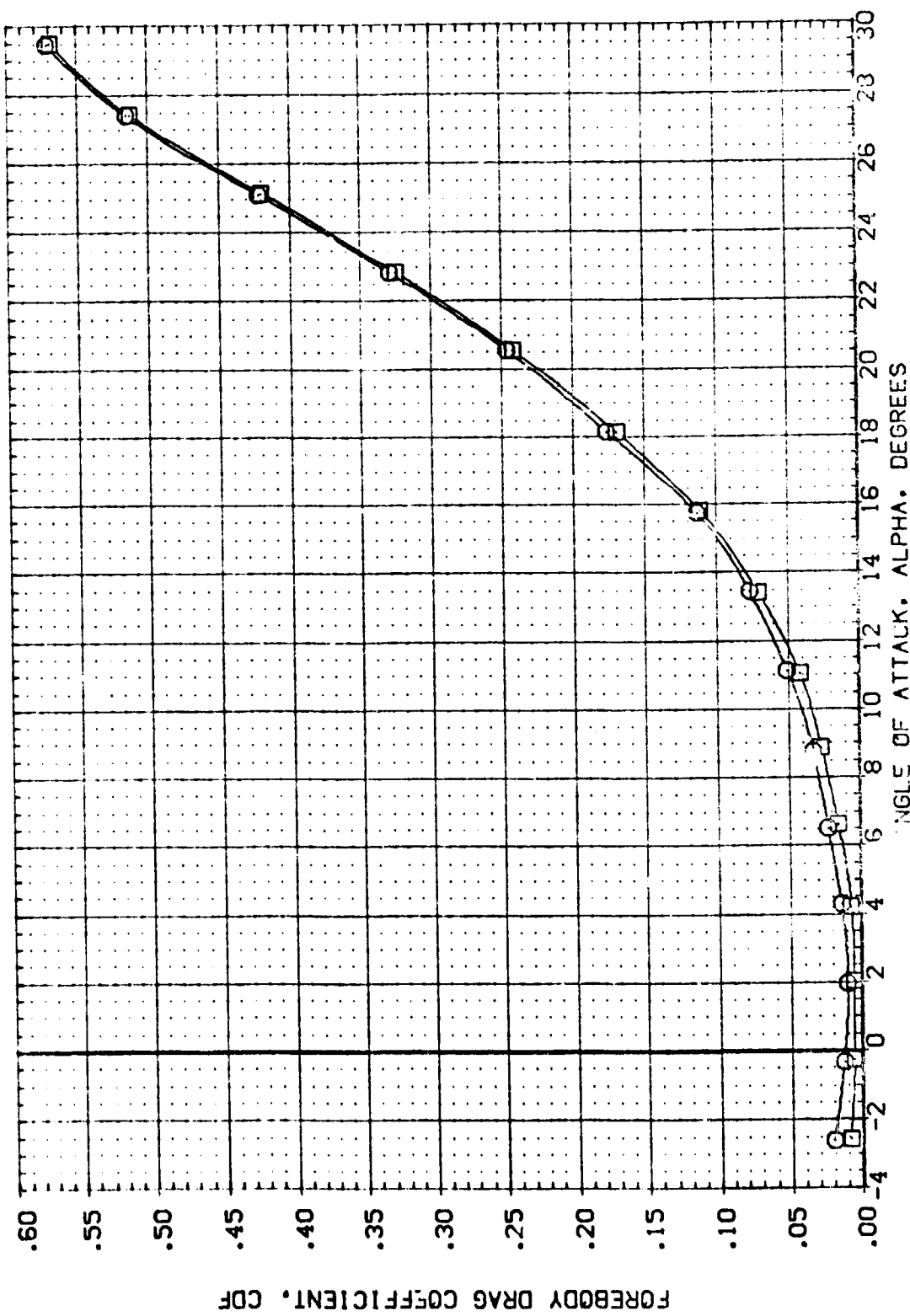


FIGURE 16 1398 ORBITER (1 IN/SEC) SPEED BRAKE DEFLECTION EFFECTS

(A) RN/L = 10.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(APPO10) CA17.L1PT138.DRB 3.(B21C7FSM4)(V107E23)(V7RS)
 (APPO11) CA17.L1PT138.DRB 3.(B21C7FSM4)(V107E23)(V7RS)

ELEVTR BOFLAP SPDBRK RUDDER
 .000 .000 .000 .000
 .000 .000 .000 .000

REFERENCE INFORMATION
 SREF 87.1560 50. IN.
 LREF 19.3545 IN.
 BREF 14.0502 INCHES
 XMRP 12.5770 INCHES
 YMRP 6.0000 INCHES
 ZMRP 6.0000 INCHES
 SCALE .0150

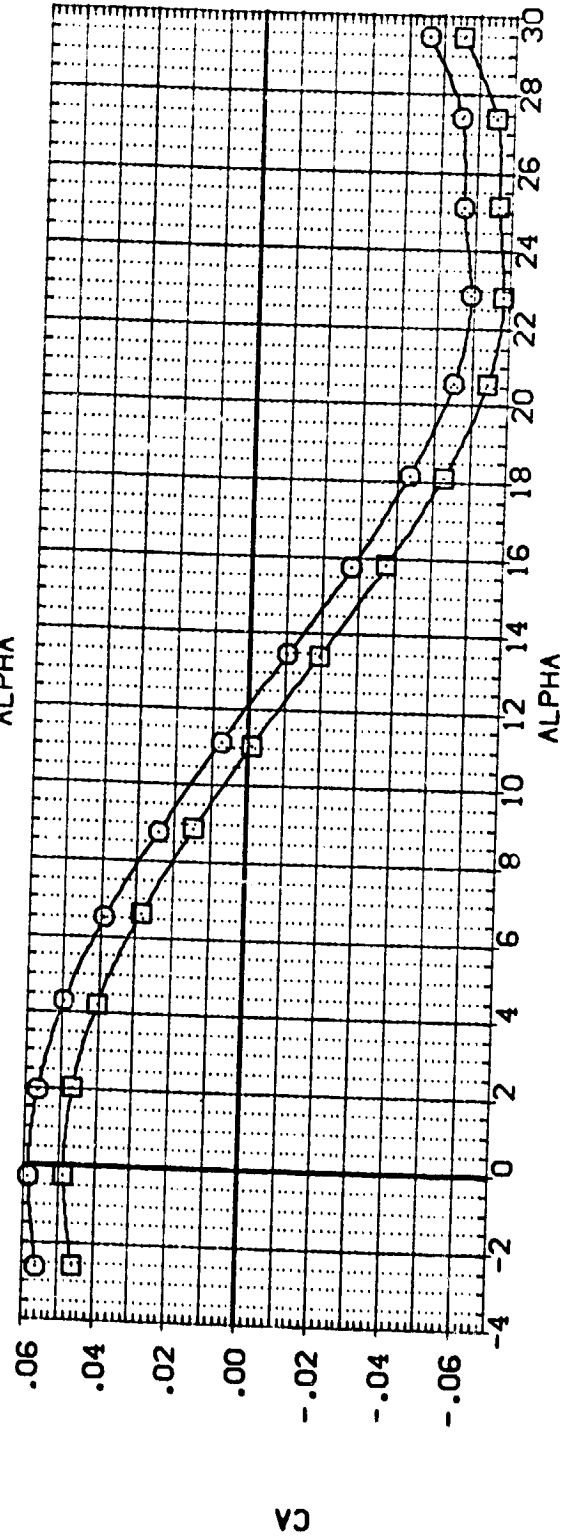
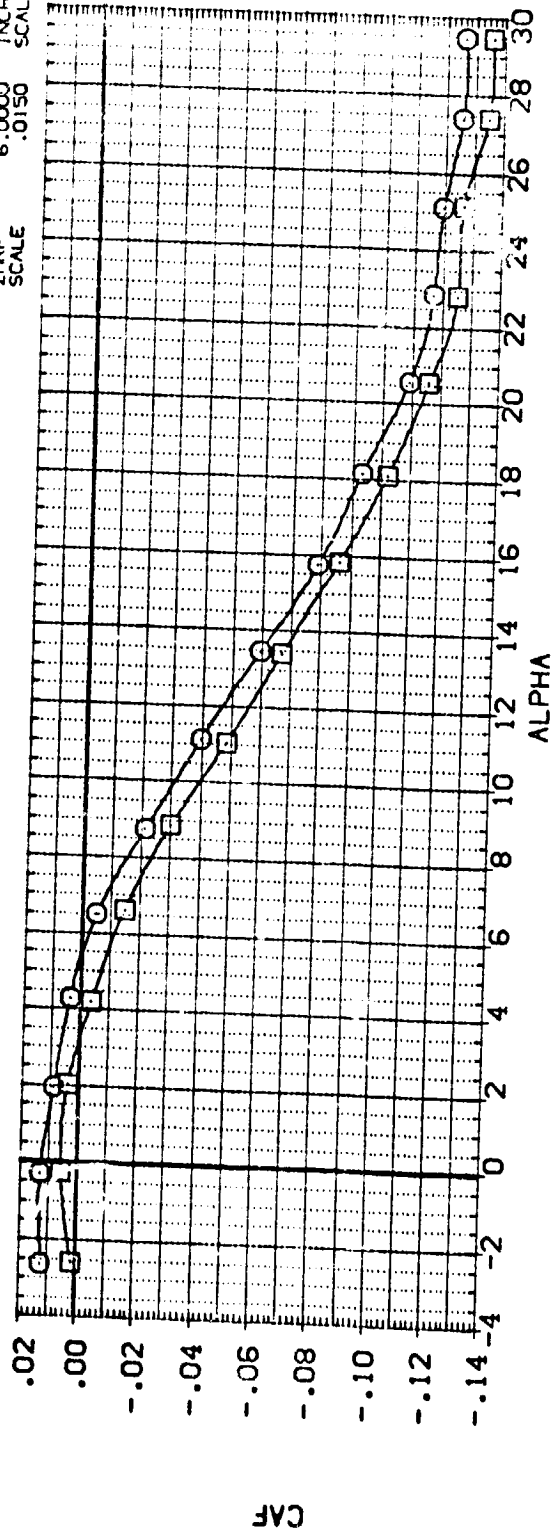


FIGURE 16 139B ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS
 (A)RN/L = 10.00



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPDBRK	RUDDER	REFERENCE INFORMATION
(APPRO10)	DA17.LTPT138.058 3.(B21C7FSM4)(V107E23)(V7R5)	.000	.000	24.920	.000	SREF 87.1560 50. IN.
(APPRO11)	DA17.LTPT138.058 3.(B21C7FSM4)(V107E23)(V7R5)	.000	.000	.000	.000	LREF 19.3545 INCHES
						BREF 14.0502 INCHES
						XMRP 12.5770 INCHES
						YMRP .00 INCHES
						ZMRP 6.0000 INCHES
						SCALE .0150 SCALE

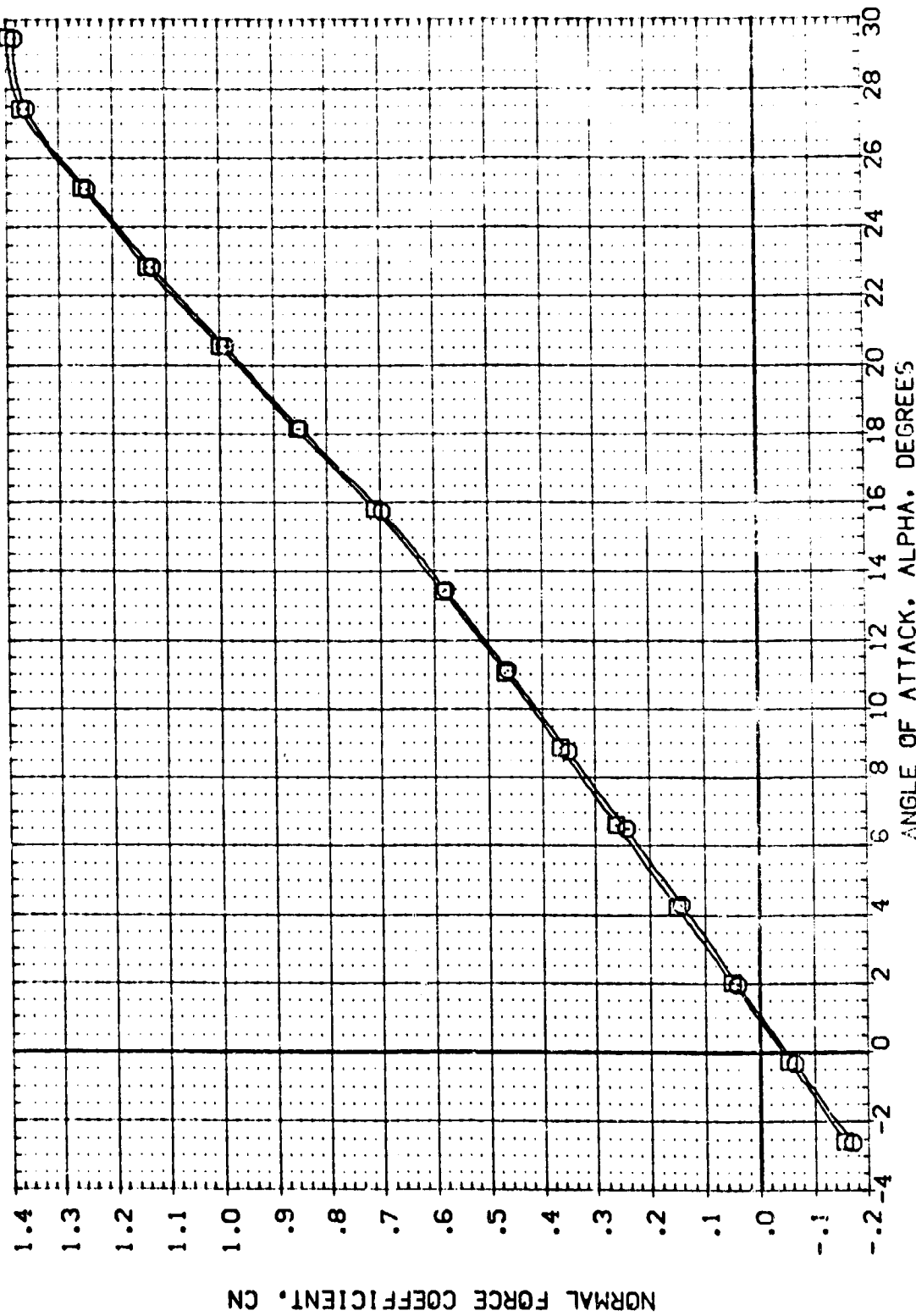


FIGURE 16 139B ORBITER (AJ NOSE) SPEED BRAKE DEFLECTION EFFECTS

(A) RN/L = 10.00

DATA SET SYMBOL: 8
 (APPO10) 0A17.LTPT138.098 3.(B21C7FSM4)(V107E23)(V7RS)
 (APPO11) 0A17.LTPT138.098 3.(B21C7FSM4)(V107E23)(V7RS)

CONFIGURATION DESCRIPTION

ELEVTR BOFLAP SPOBRK RUDDER REFERENCE INFORMATION

REF	SO. IN.
SREF	87.1530
LREF	19.3545
BREF	14.0502
XTRP	12.5770
YTRP	6.0000
ZTRP	6.0000
SCALE	.0150

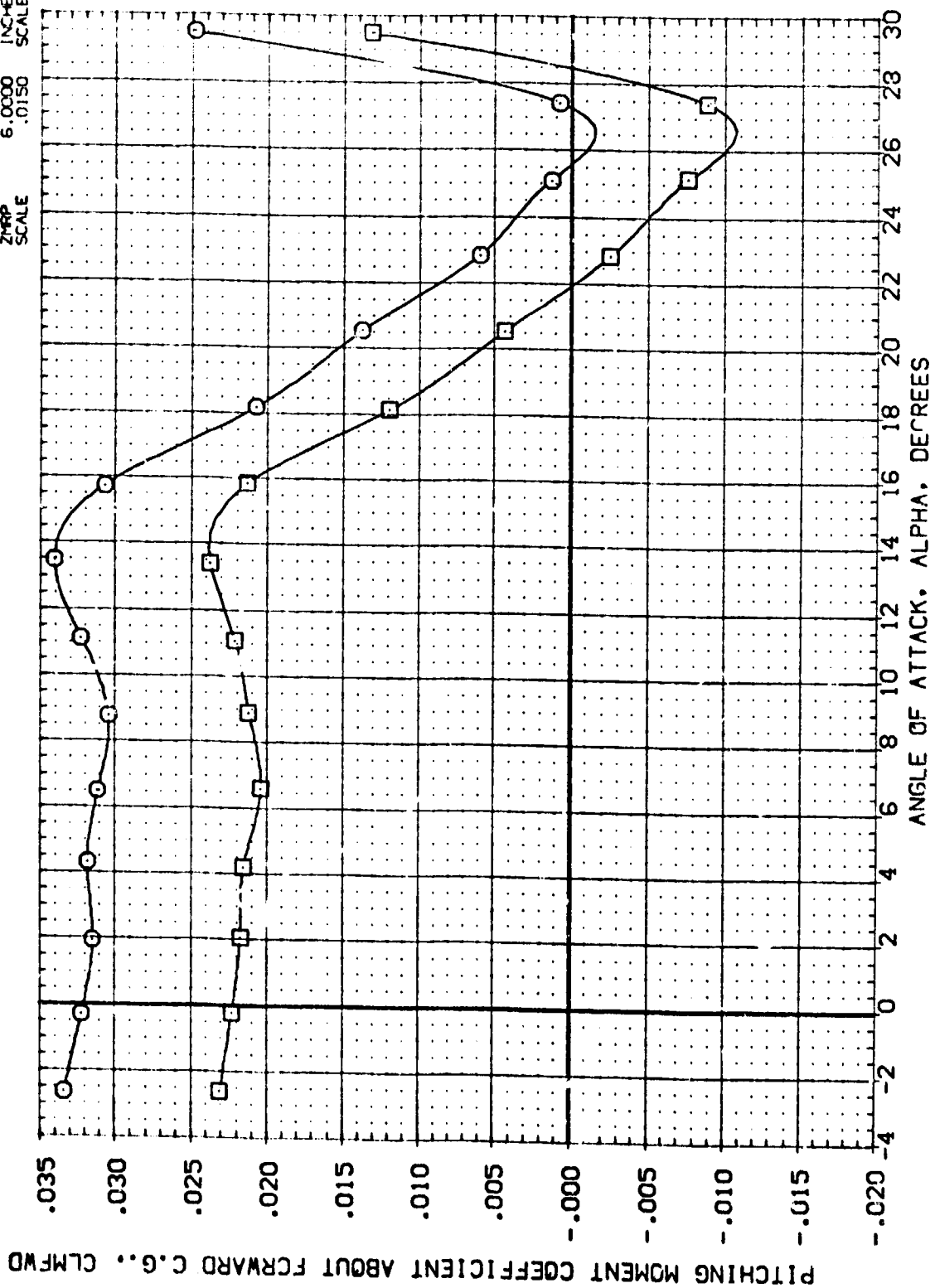


FIGURE 16 1398 ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS

(AJRN/L = 10.00



2-5

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPDBRK	RUDDBK	REFERENCE INFORMATION
(APPO10)	0A17.LTPT138.0R8 3.(821C7FSM4)(V107E23)(V7RS)	.000	.000	.000	.000	SREF 87.1560 SQ.IN.
(APPO11)	0A17.LTPT138.0R8 3.(821C7FSM4)(V107E23)(V7RS)	.000	.000	.000	.000	LREF 19.3545 INCHES
						BREF 14.0502 INCHES
						XTRP 12.5770 INCHES
						YTRP .0000 INCHES
						ZTRP 6.0000 INCHES
						SCALE .0150

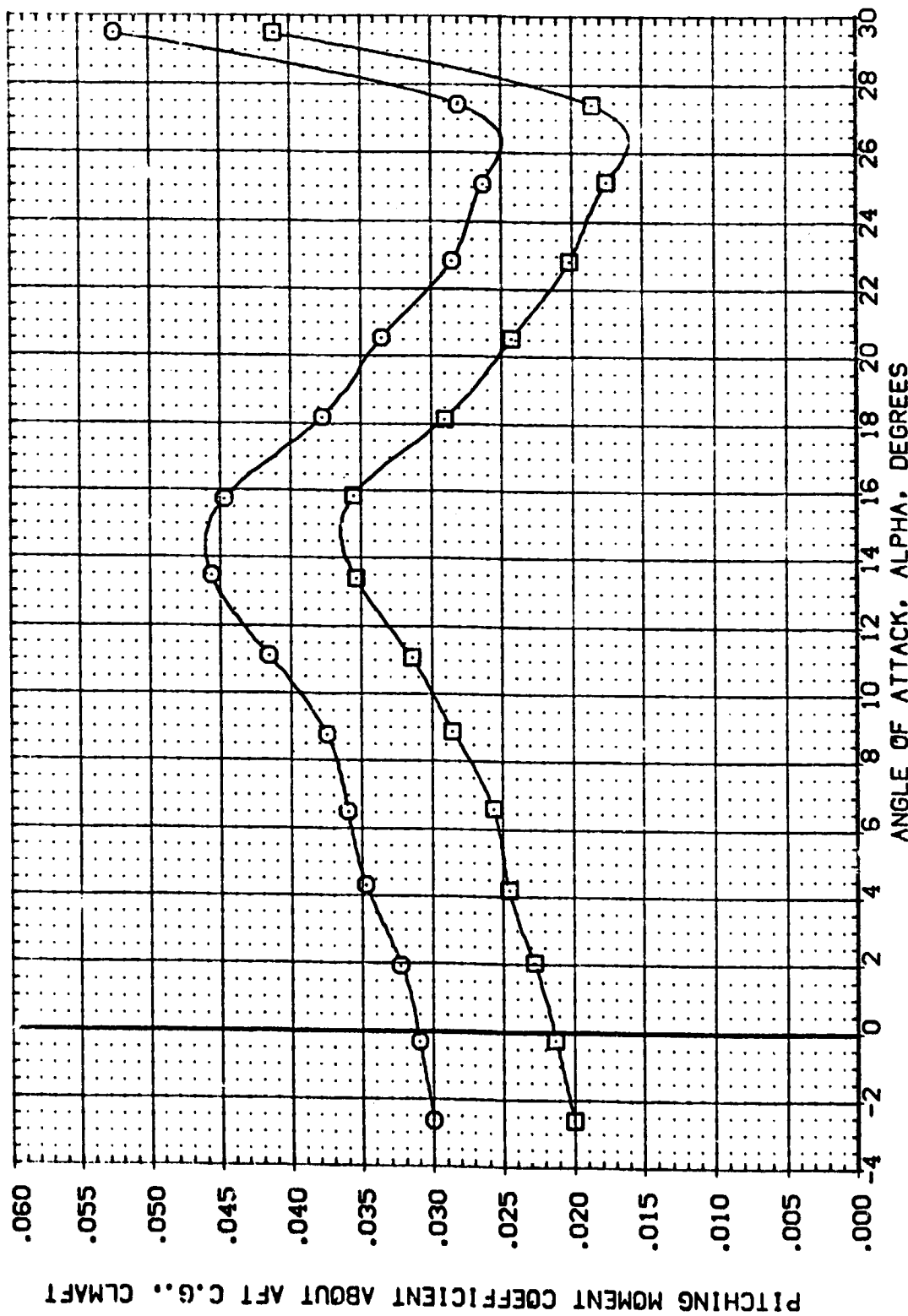


FIGURE 16 139B ORBITER (Y00 NOSE) SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVTR		BOFLAP		SPOBRK		RUDDER		REFERENCE INFORMATION	
(APPC10)	8	DA17.LTPT138.058	3.(B21C7F5M4)(V107E23)(V7RS)	.000	.000	.000	.000	24.920	.000	.000	.000	SREF	87.1560
(APPC11)		DA17.LTPT138.058	3.(B21C7F5M4)(V107E23)(V7RS)	.000	.000	.000	.000	.000	.000	.000	.000	LREF	19.3545
												BREF	14.0502
												YREF	12.5770
												ZREF	6.0000
												SCALE	.0150
												INCHES	INCHES
												INCHES	INCHES
												SCALE	SCALE

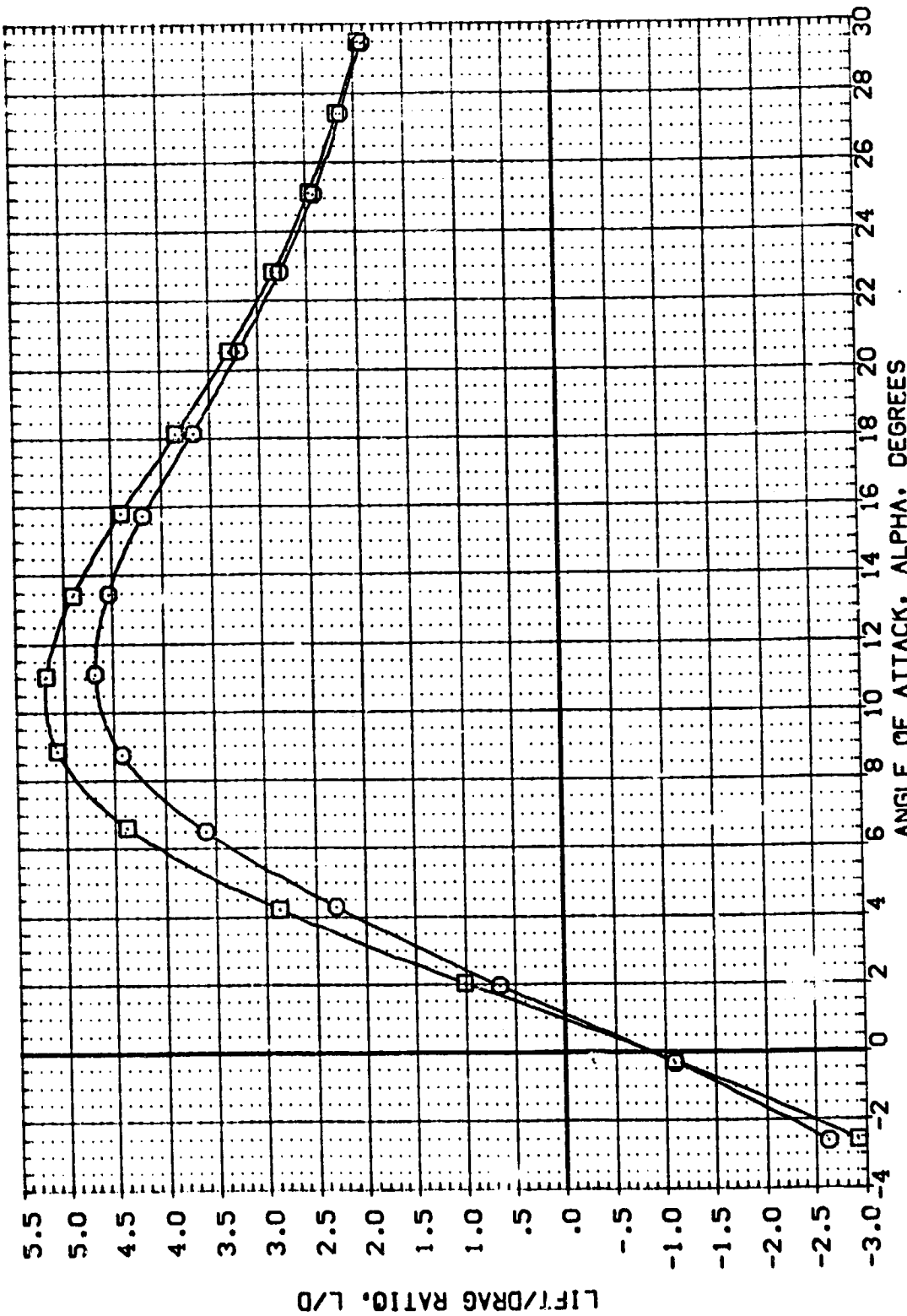


FIGURE 16 1398 ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS
 (A)RN/L = 10.00



DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVTR		80° LAP		SPDRK		RUDDER		REFERENCE INFORMATION	
(APPRO10)	□	0A17/LIPT138.0RB	3.(821C7FS4)(V107E23)(V7RS)	.000	.000	.000	.000	24.920	.000	.000	.000	SREF	87.1560
(APPRO11)	□	0A17/LIPT138.0RB	3.(821C7FS4)(V107E23)(V7RS)	.000	.000	.000	.000	.000	.000	.000	.000	LREF	19.3545
												BREF	14.0502
												XMRP	12.5770
												YMRP	1.0000
												ZMRP	6.0000
												SCALE	.0150

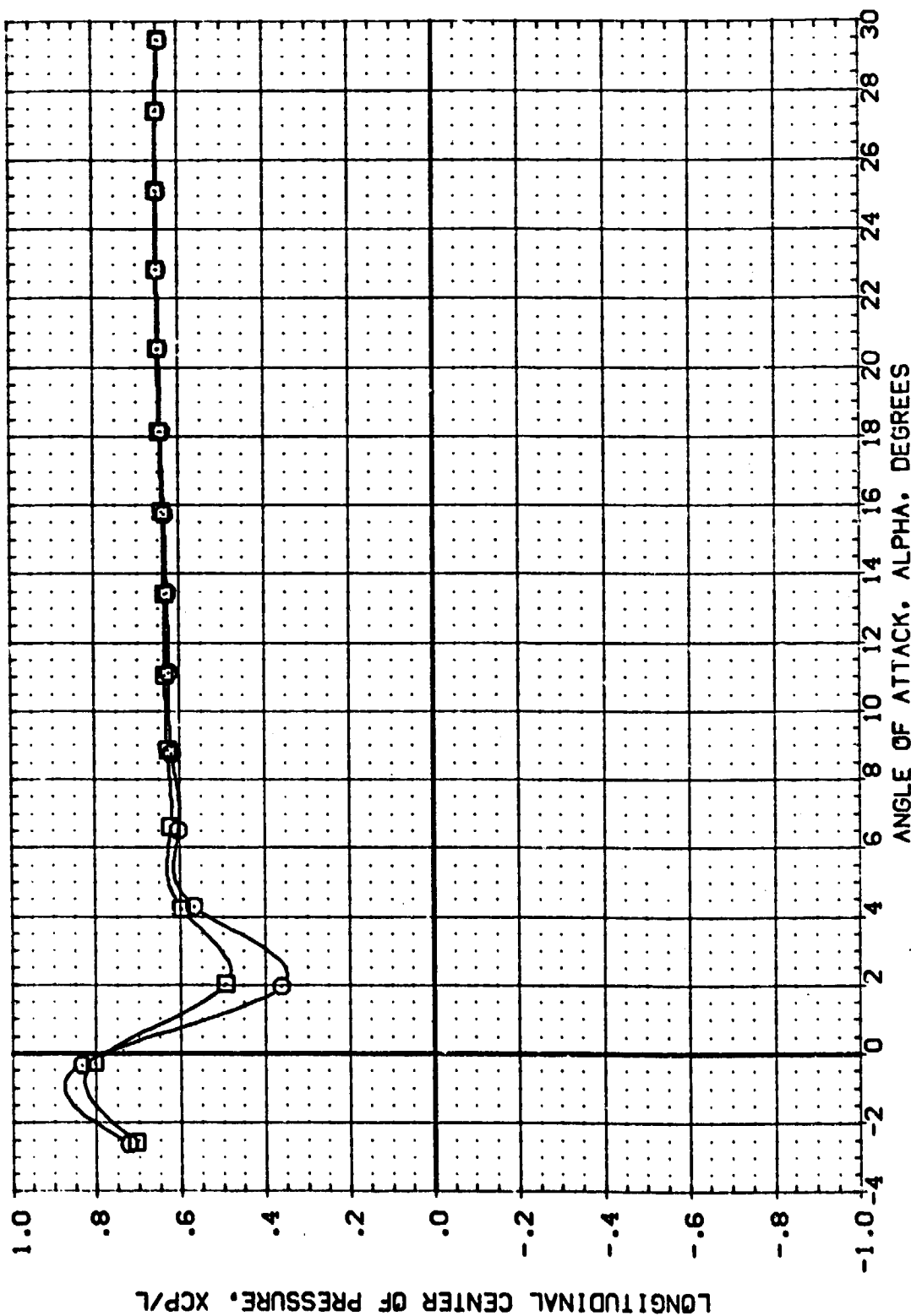


FIGURE 16 139B ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVTR		BOFLAP		SPOBRK		RUDDER		REFERENCE INFORMATION	
(APPO10)	□	CA17-LTPT138-058 3. (B21C7FSM4)(V10TE23)(V7R5)	.000	.000	.000	.000	.000	.000	.000	.000	.000	SREF	87.1560
(APPO11)	□	CA17-LTPT138-058 3. (B21C7FSM4)(V10TE23)(V7R5)	.000	.000	.000	.000	.000	.000	.000	.000	.000	LAREF	19.3545
												BREF	14.0502
												XTRP	12.5770
												YTRP	6.0000
												ZTRP	6.0000
												SCALE	.0150
													INCHES
													INCHES
													SCALE

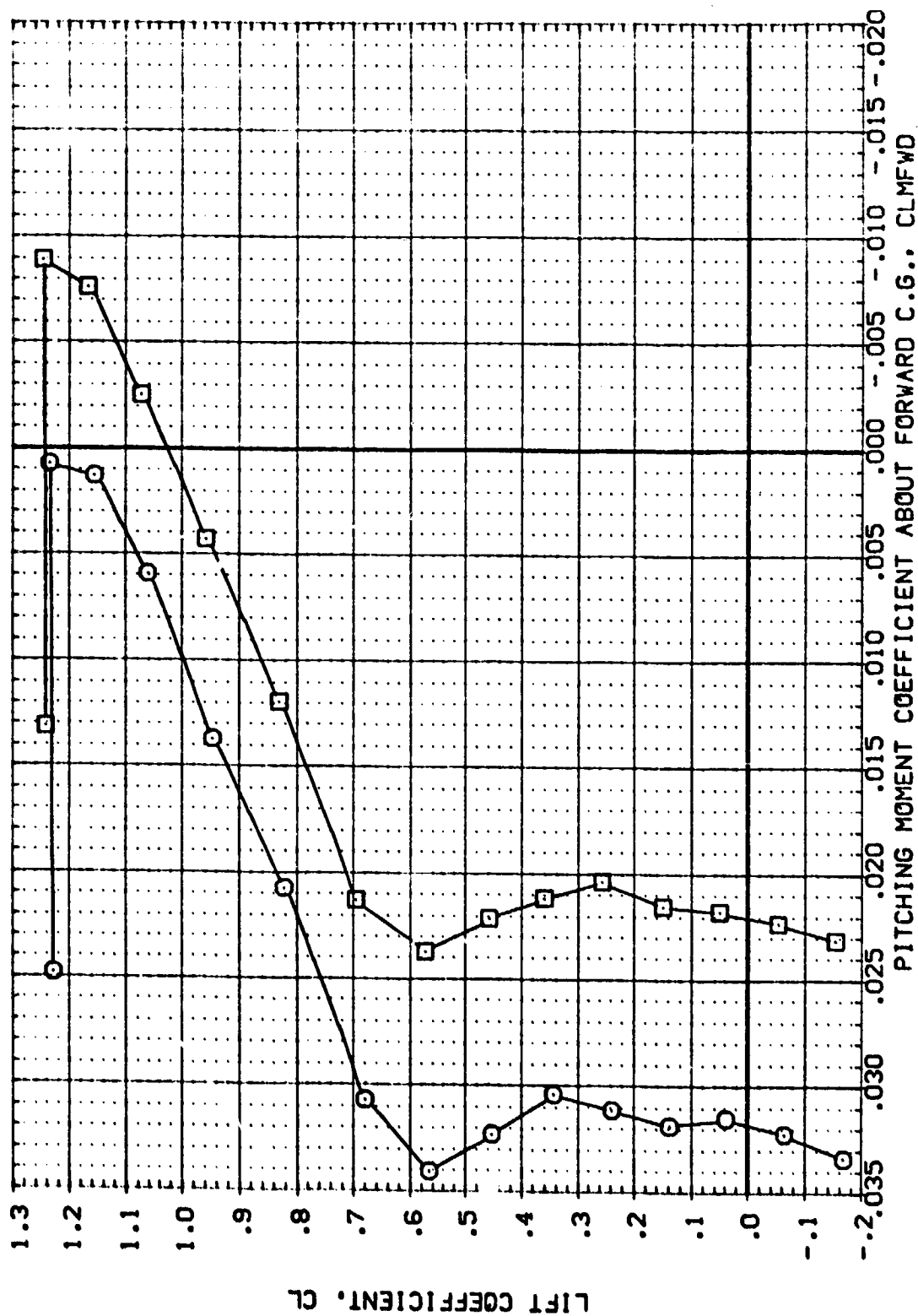


FIGURE 16 139B ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS

CAJRN/L = 10.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION ELEVTR BOFLAP SPUBRK RUDDER REFERENCE INFORMATION

(APC10)	DA17.LTPT138.058 3.(B21C7F544)(V107E23)(V7RS)	.000	.000	24.920	.000	SREF 87.1560 50.IN.
(APC11)	DA17.LTPT138.058 3.(B21C7F544)(V107E23)(V7RS)	.000	.000	.000	.000	LREF 19.3545 INC-ES
						BREF 14.0502 INC-ES
						XTRP 12.5770 INC-ES
						YTRP .0000 INC-ES
						ZTRP .0000 INC-ES
						SCALE .0150 SCALE

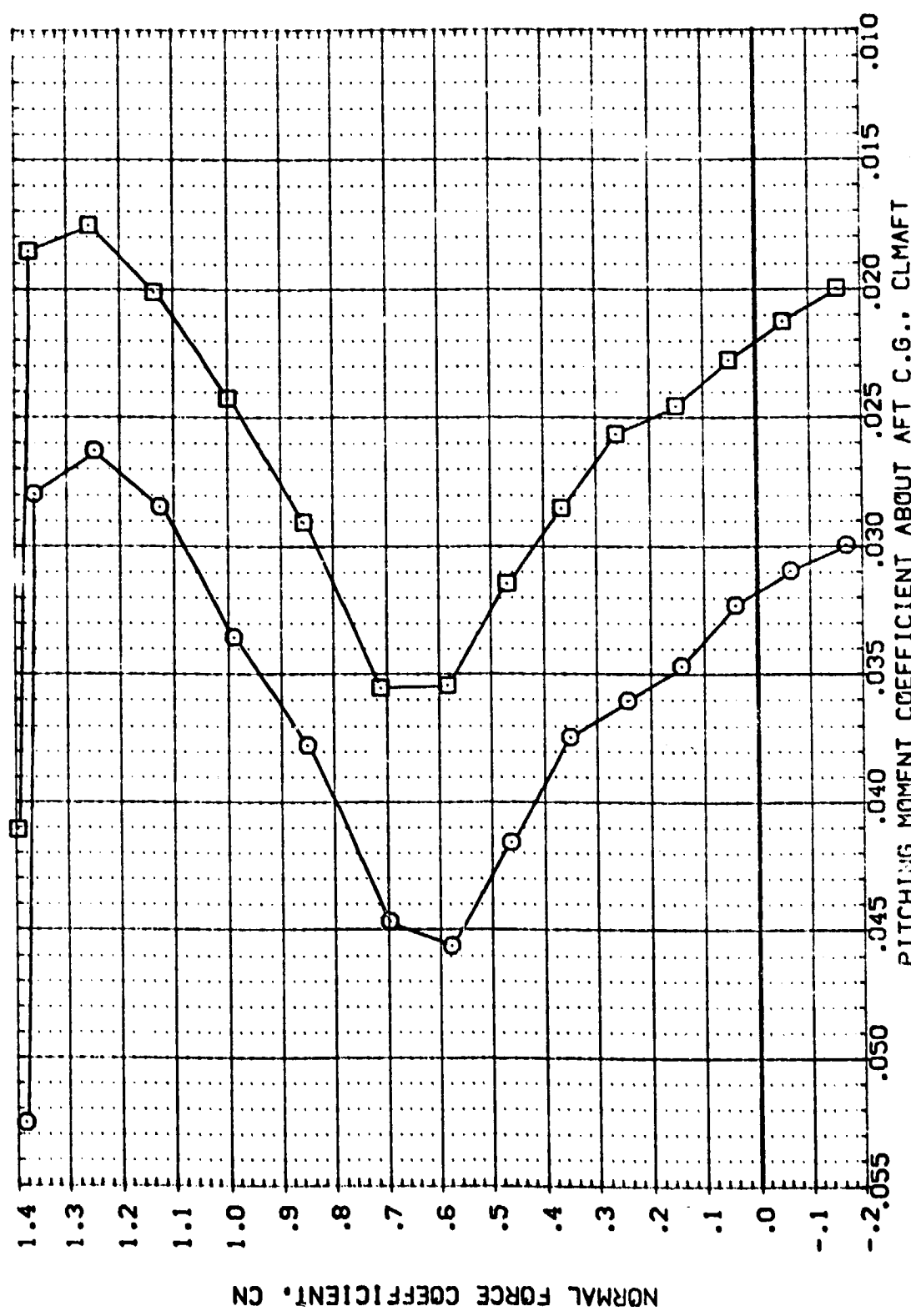


FIGURE 16 139B ORBITER (NOSE) SPEED BRAKE DEFLECTION EFFECTS

(A) RN/V = 10.00

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		REFERENCE INFORMATION	
(APPROJ)	8	QAL7.LTPT138.088	3.(821C7F5M4)(V107E23)(V7R5)	SREF	87.1560
(APPROJ)		QAL7.LTPT138.088	3.(821C7F5M4)(V107E23)(V7R5)	LREF	19.3545
				BREF	14.0502
				XTRP	12.5770
				YTRP	.0000
				ZTRP	.0000
				SCALE	.0150
					SCALE

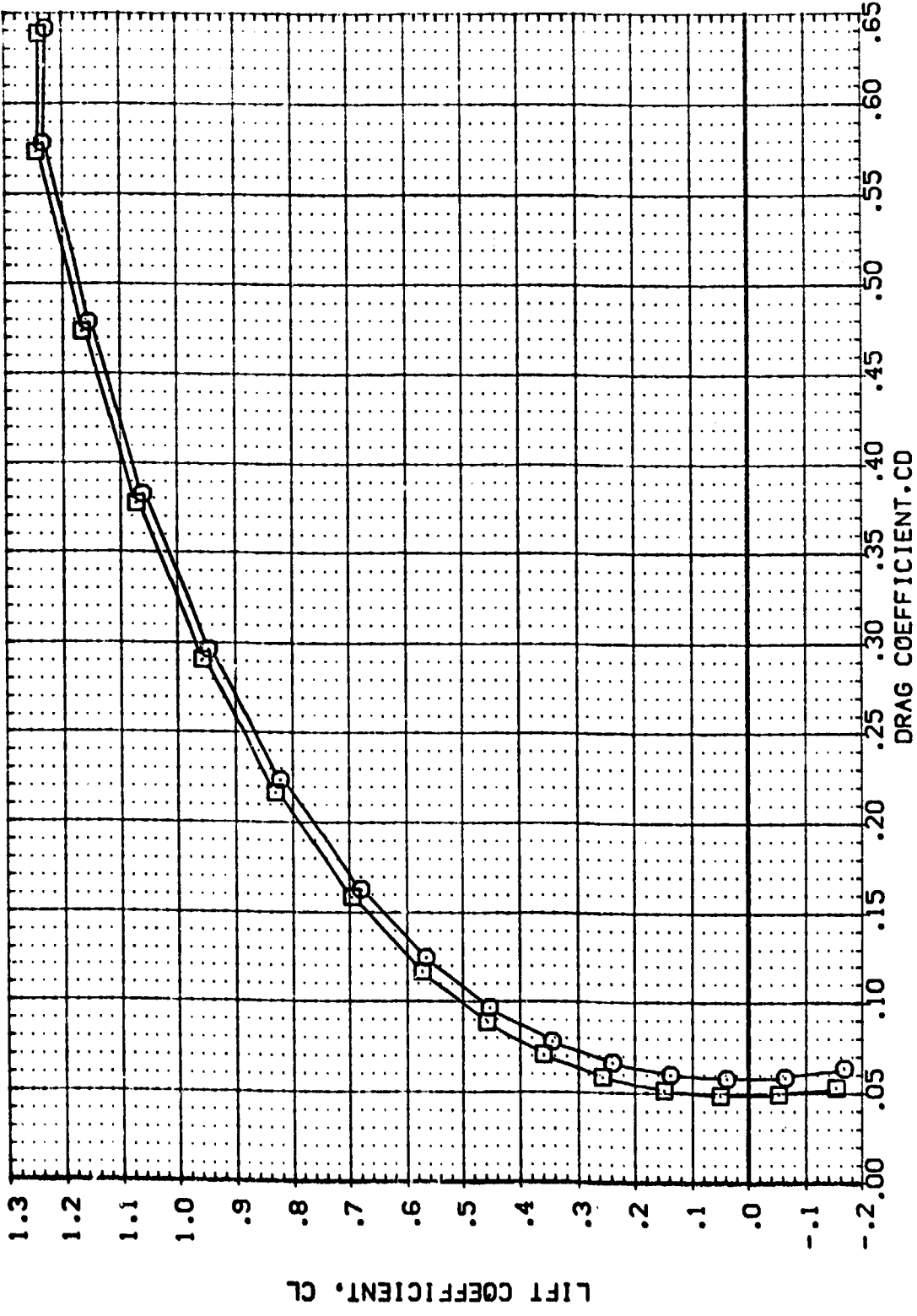


FIGURE 16 139B ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 10.00



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDER	REFERENCE INFORMATION	
(RPO10)	0A17.LIPT138.088 3.(821C7FS44)(V107E23)(V7RS)	.000	.000	24.920	.000	SREF	87.1560
(RPO11)	0A17.LIPT138.088 3.(821C7FS44)(V107E23)(V7RS)	.000	.000	.000	.000	LREF	19.3345
						BMREF	14.0502
						YMRP	12.5770
						ZMRP	.0000
						SCALE	6.0000
							.0150
							INCHES
							INCHES
							INCHES
							SCALE

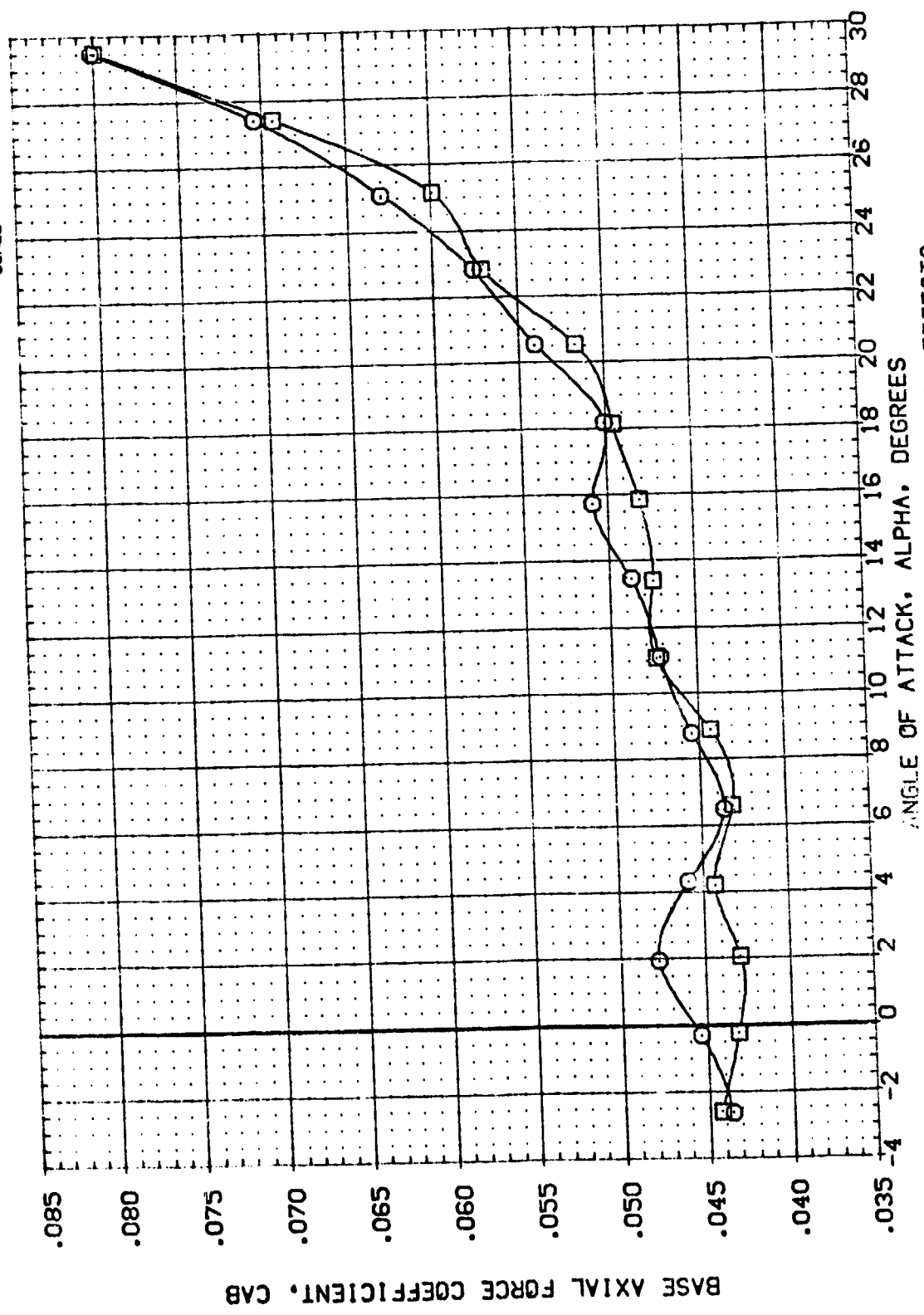


FIGURE 16 139B ORBITER (NOSE) SPEED BRAKE DEFLECTION EFFECTS
 (A)RN/L = 10.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(APPROJ) DATA NOT AVAILABLE
(APPROJ:1) DA17.LTPT138.088 3.(B21C7F5M4)(V107E23)(V7R5)

ELEVTR BOFLAP SPOBRK RUDDER REFERENCE INFORMATION
.000 .000 .000 .000 SREF 87.1560 50. IN.
.000 .000 .000 .000 LREF 19.3545 INCHES
XMRP 14.0502 INCHES
YMRP 12.5770 INCHES
ZMRP 6.0000 INCHES
SCALE .0150 SCALE

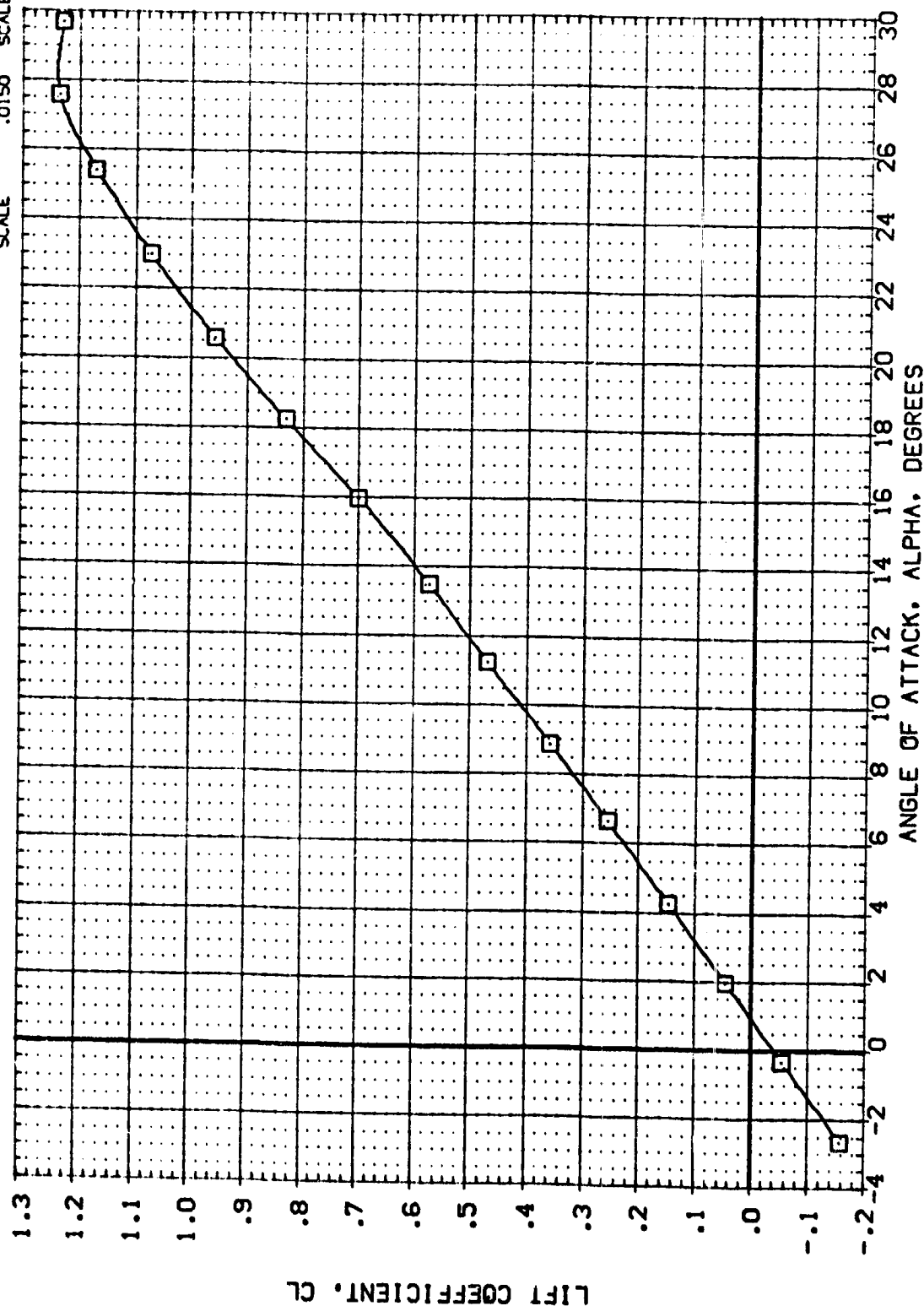


FIGURE 16 1398 ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 12.50



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(AP010) DATA NOT AVAILABLE
(AP011) SA17.LTPT138.528 3.(B21C7F5/4)(W107E23)(V7R5)

ELEVTR EDCLAP SPOBRK RUDDER REFERENCE INFORMATION
 .000 .000 .000 SREF 87.1560 50.1N.
 .000 .000 .000 LREF 19.3545 INCHES
 .000 .000 .000 BREF 14.0502 INCHES
 .000 .000 .000 XMRP 12.5770 INCHES
 .000 .000 .000 YMRP 6.0000 INCHES
 .000 .000 .000 ZMRP 6.0000 INCHES
 .000 .000 .000 SCALE .0150 SCALE

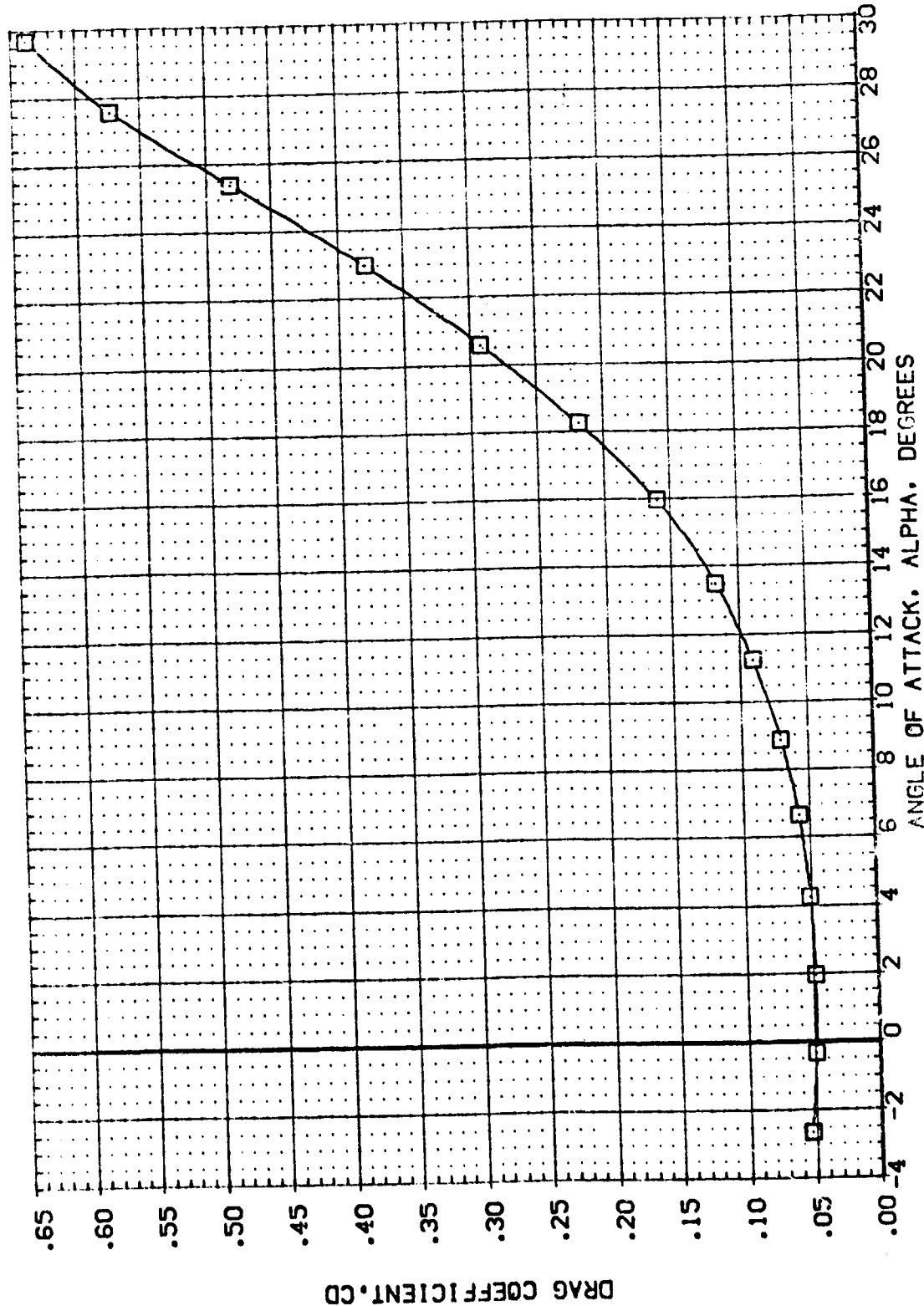


FIGURE 16 1398 ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 12.50

DATA SET SYMBOL: (APPRO10)
 CONFIGURATION DESCRIPTION: DATA NOT AVAILABLE
 (APPRO11) 0A17.LTPT138.058 3. (821C7F5M)(V107E23)(V7R5)

ELEVTR BOFLAP SPOBKK RUDDER
 .000 .000 .000 .000
 .000 .000 .000 .000

REFERENCE INFORMATION
 SREF 87.1550 50. IN
 LREF 19.3545 INCHES
 BREF 14.0502 INCHES
 XMRP 12.5770 INCHES
 YMRP .0000 INCHES
 ZMRP 6.0000 INCHES
 SCALE .0150 SCALE

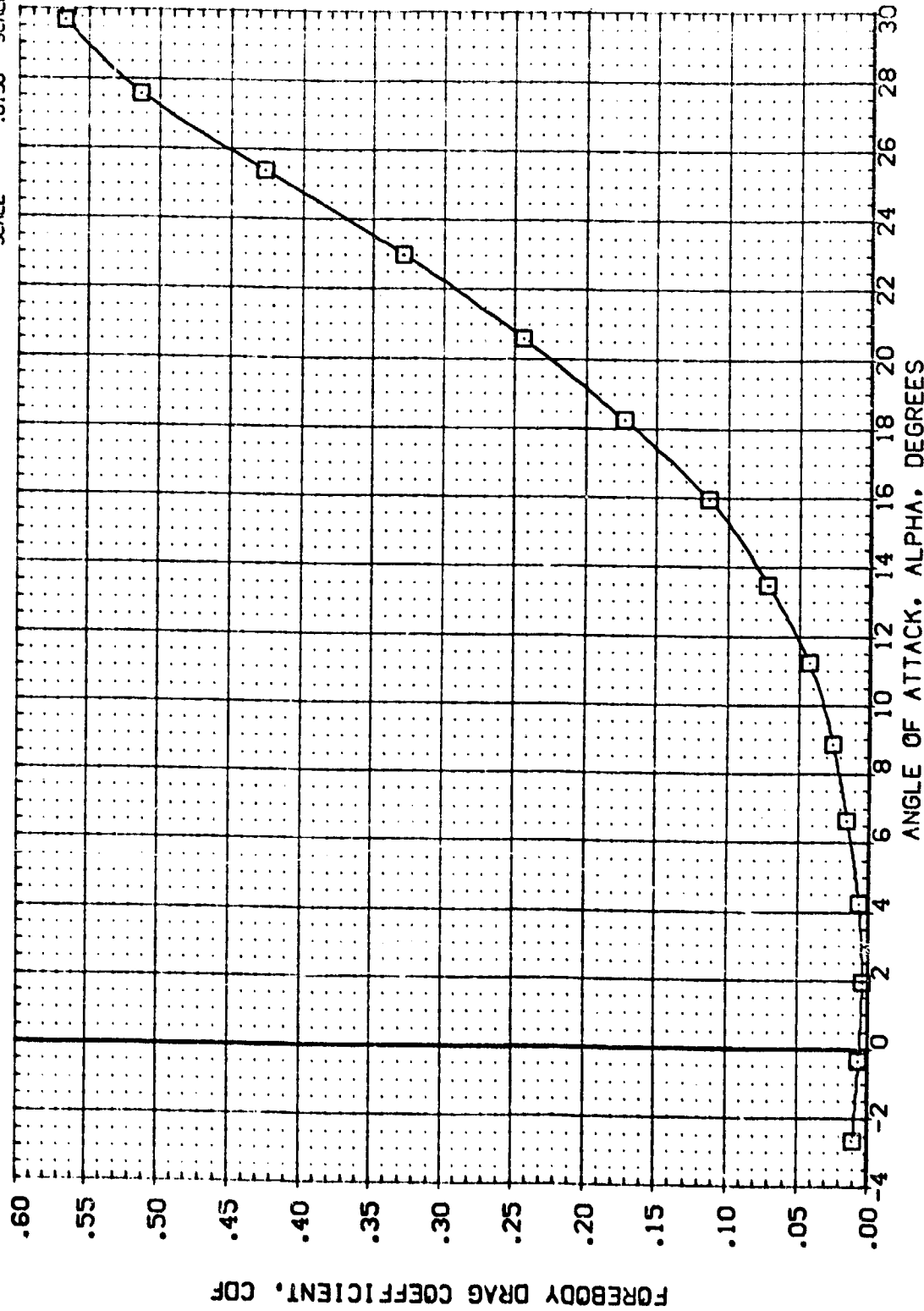


FIGURE 16 139B ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 12.50

DATA SET SY-001
 (A50011)
 (A50011)
 (A50011)

CONFIGURATION DESCRIPTION
 DATA NOT AVAILABLE
 CA17.4LPT138.008 3. (B21C7F5M4)(V107E23)(V7R5)

ELEVTR
 .000
 .000

80CLAP
 .000
 .000

SPOBRK
 24.920
 .000

RUDDER
 .000
 .000

REFERENCE INFORMATION
 SRPF 87.1560 50.1 IN.
 LREF 19.3545 INCHES
 BREF 14.0502 INCHES
 XMRP 12.5770 INCHES
 YMRP 6.0000 INCHES
 ZMRP 6.0000 INCHES
 SCALE .0150

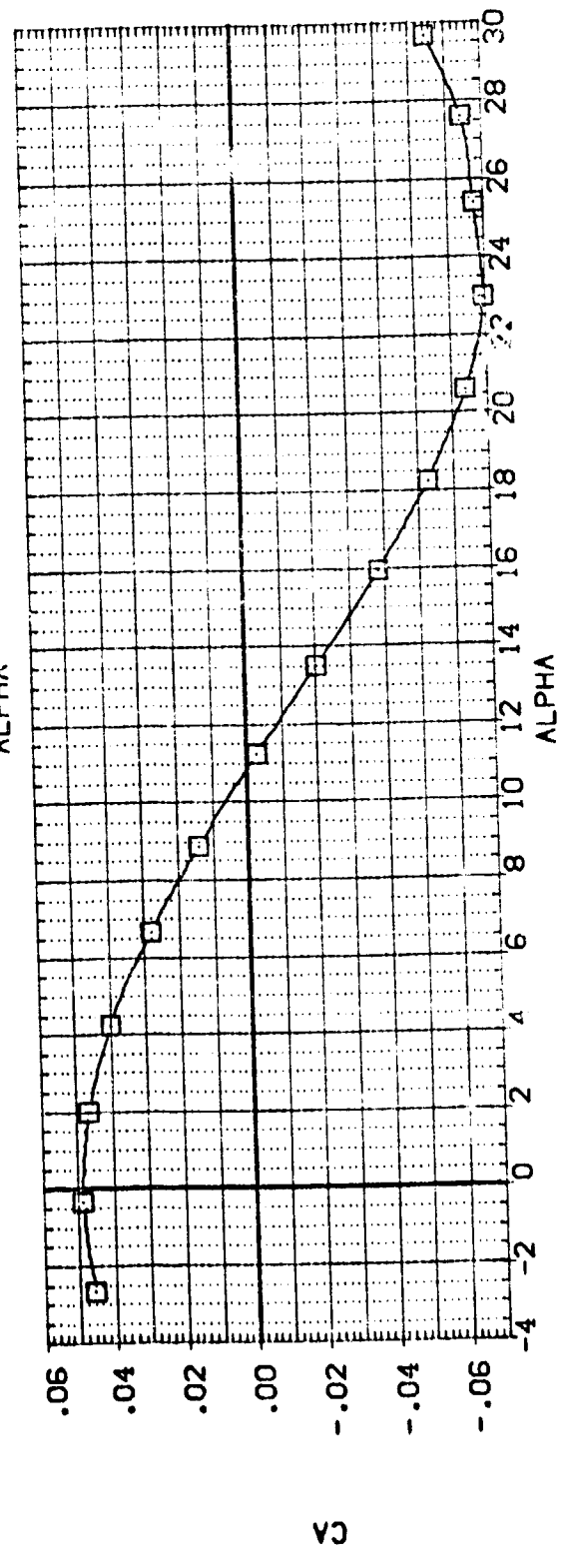
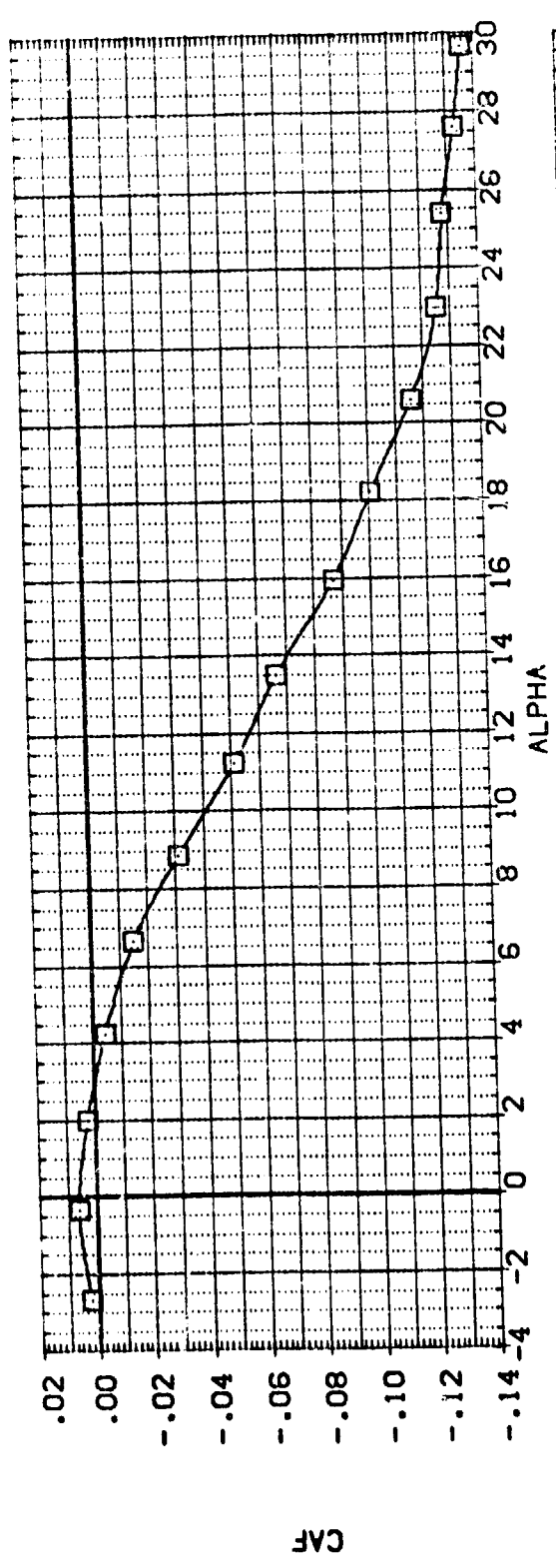


FIGURE 16 139B ORBITER (400 NOSE) SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 12.50

(APPC10) ☐ DATA NOT AVAILABLE
(APPC11) ☐ 0A17.LTPT138.ORB 3.(B21C7FSM4)(V1C7E23)(V7R5)

ELEVTR	BOFLAP	SPOBRK	RUDDER
.000	.000	24.920	.000
.000	.000	.000	.000

REFERENCE INFORMATION	
SREF	87.1560 SQ. IN.
LREF	9.3545 INCHES
BREF	14.0502 INCHES
XYMP	12.5770 INCHES
YMP	.0000 INCHES
ZMP	6.0000 INCHES
SCALE	.0150 SCALE

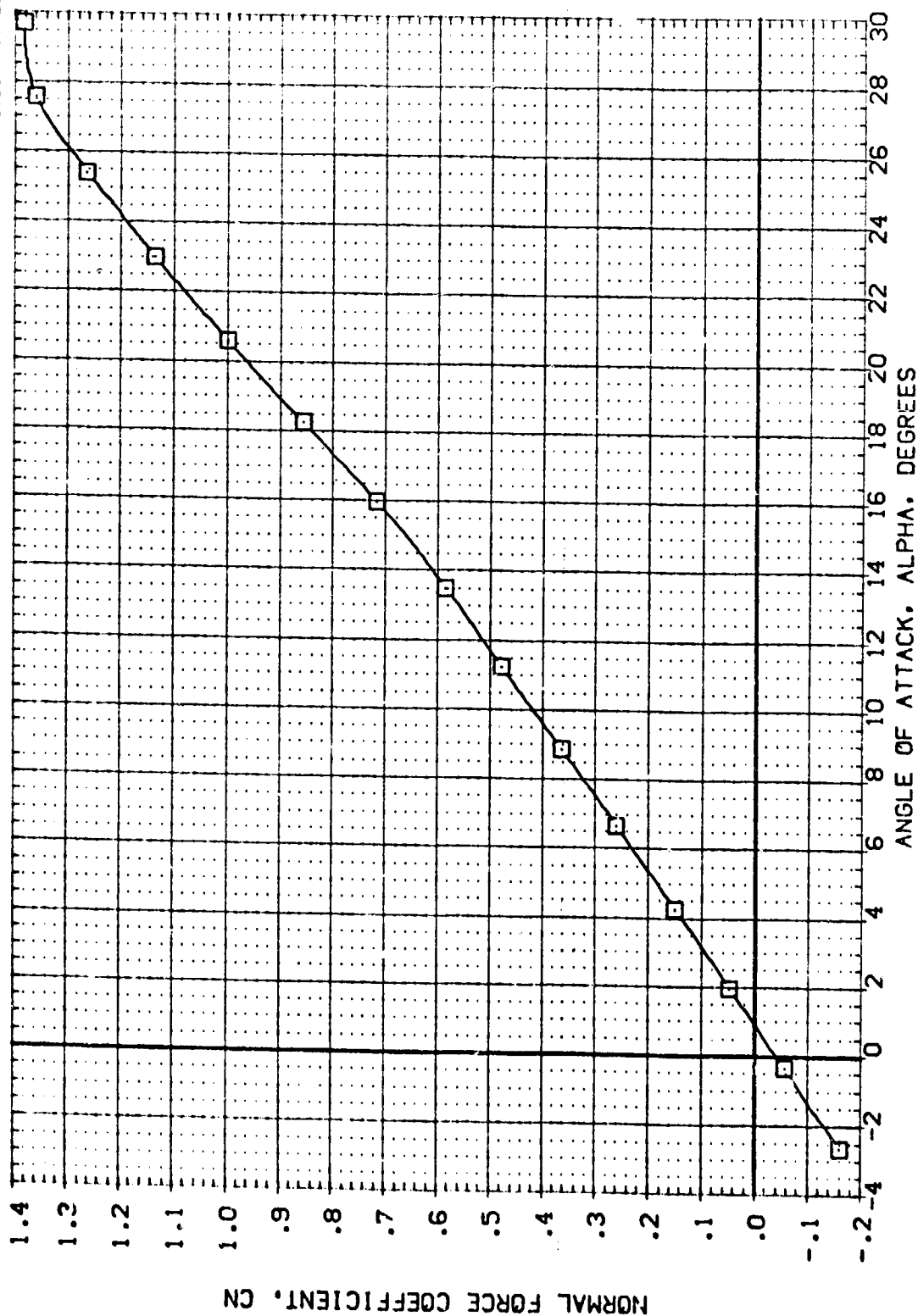


FIGURE 16 139B ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS

$$C_{ADRN/L} = 12.50$$



DATA SET SYMBOL: (APPC10) DATA NOT AVAILABLE
(APPC11) DA17.LTPT138.058 3.(B21C7F5H4)(W107E23)(V7R5)

REFERENCE INFORMATION

SREF	87.1560	SO.IN.
LREF	19.3545	INCHES
BREF	14.0502	INCHES
XMRP	12.5770	INCHES
YMRP	.0030	INCHES
ZMRP	6.0000	INCHES
SCALE	.0150	SCALE

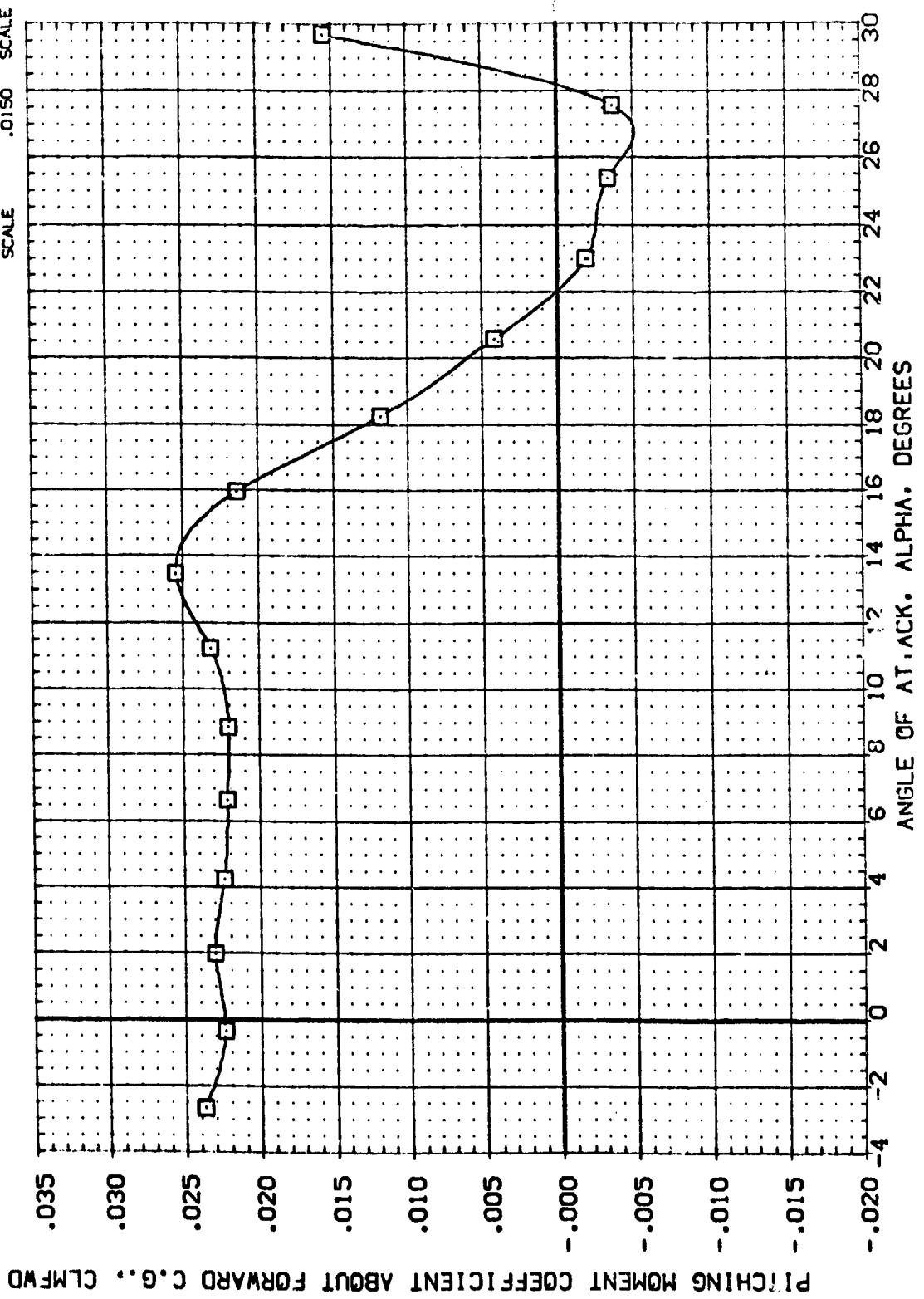


FIGURE 16 139B ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS

(AJRN/L = 12.50

DATA SET SYMBOL: ☐ DATA NOT AVAILABLE
 (APPROD) 0017.017138.008 3. (821C75M4)(V107E23)(V7R5)

ELEVTR 0.000 0.000
 BOFLAP 0.000 0.000
 SPOBRK 24.920 0.000
 RUDDER 0.000 0.000
 REFERENCE INFORMATION
 SREF 67.1560 SO.IN.
 LREF 19.3545 INCHES
 BREF 14.0502 INCHES
 XMRP 12.5770 INCHES
 YMRP 0.0000 INCHES
 ZMRP 6.0000 INCHES
 SCALE 0.0150 SCALE

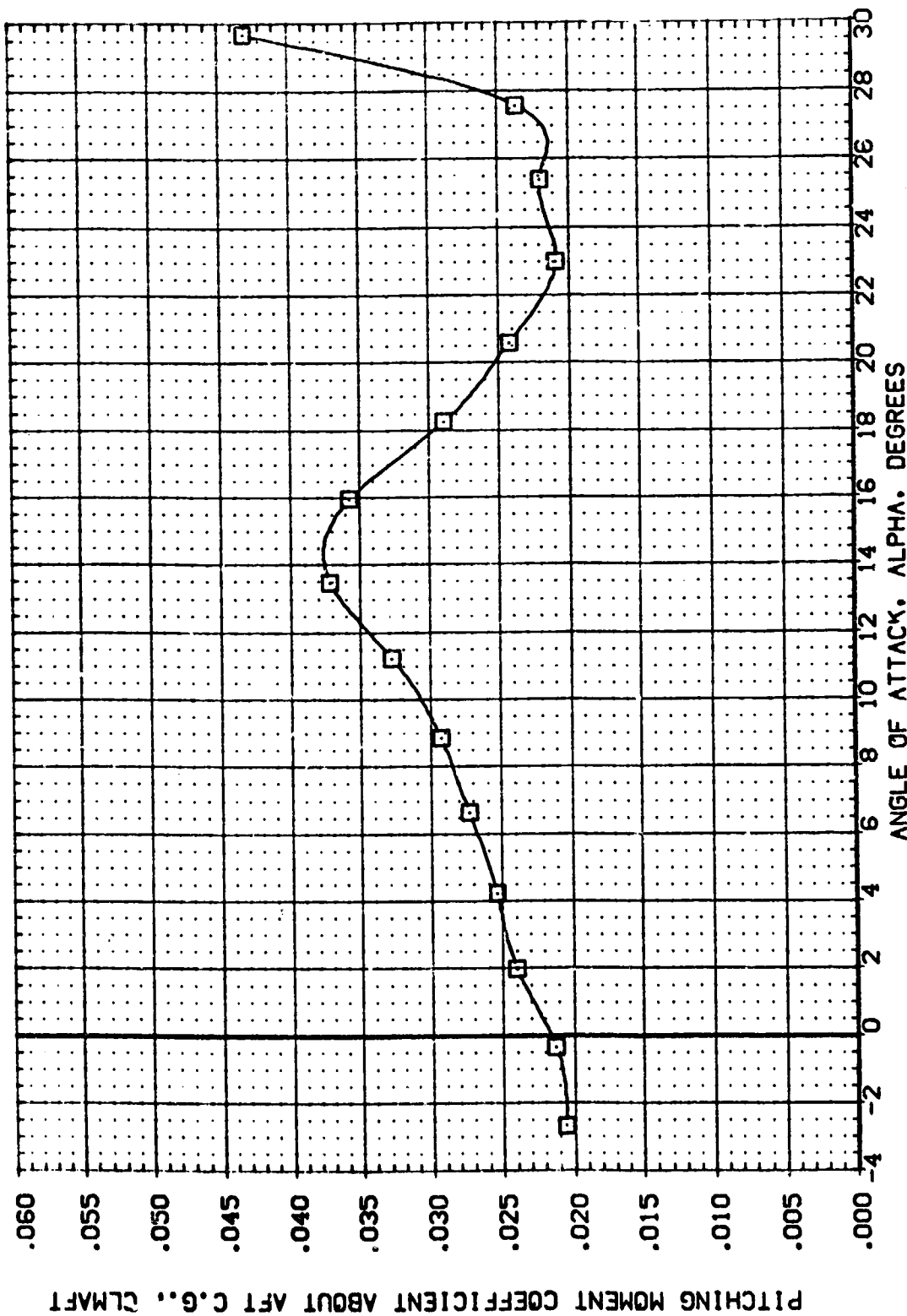


FIGURE 16 1398 ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 12.50

DATA SET SYMBOL: ☐ CONFIGURATION DESCRIPTION:
 (APPO10) DATA NOT AVAILABLE
 (APPO11) 0A17.LTPT138.0R8 3. (B21C7F5M4) (V107E231) (V7MS)

ELEV. 2: .000
 .000
 .000

REFERENCE INFORMATION:
 SREF 87.1560 50 IN.
 LREF 19.3545 INCHES
 BREF 14.0502 INCHES
 XMRP 12.5770 INCHES
 YMRP 6.0000 INCHES
 ZMRP 6.0000 INCHES
 SCALE .0150

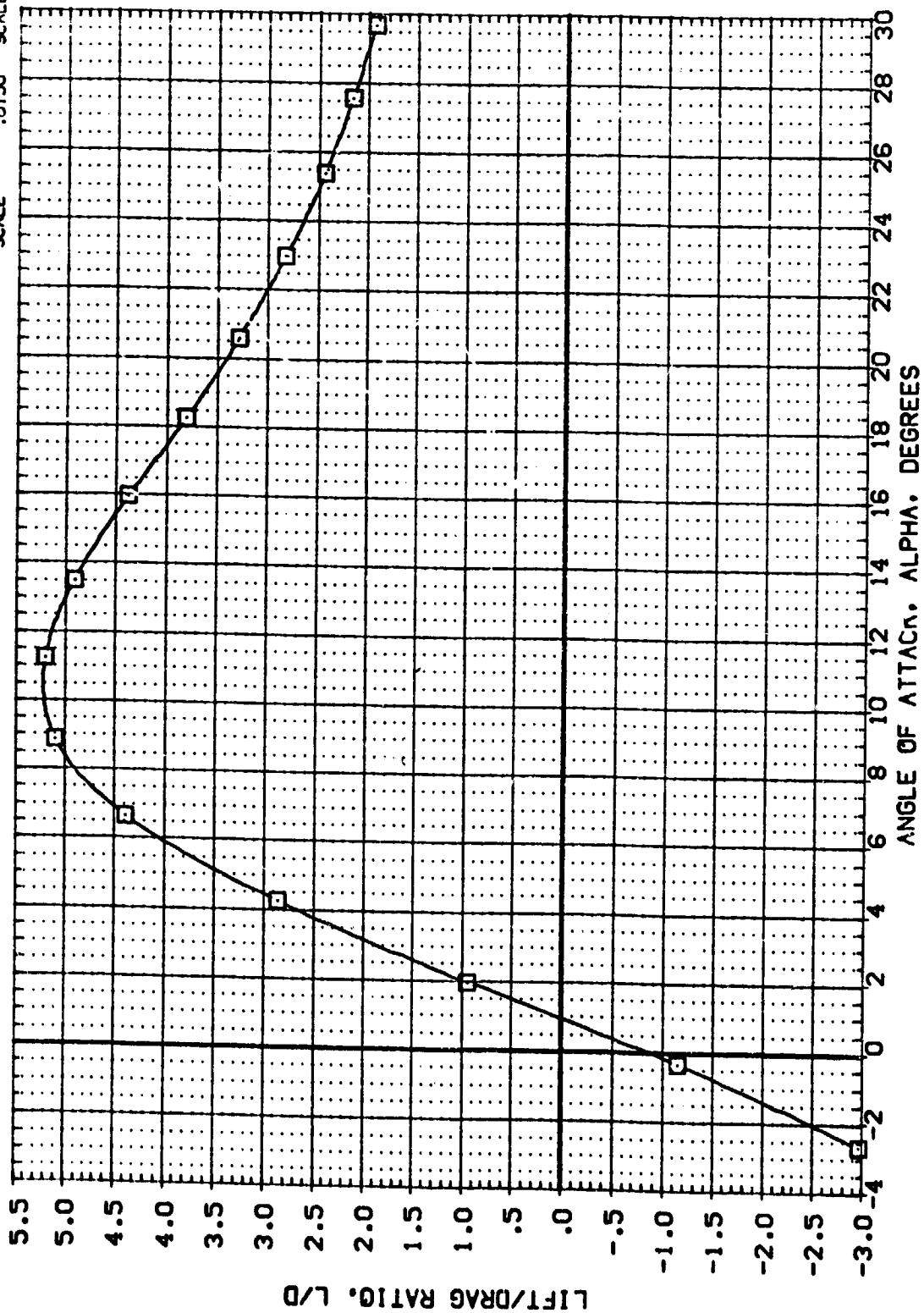


FIGURE 16 139B ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 12.50

DATA SET SYMBOL: **B** CONFIGURATION DESCRIPTION: DATA NOT AVAILABLE
 (APPO10) 0A17.LTPT138.088 3.(821C7FS4)(V107E23)(V7RS)
 (APPO11)

REFERENCE INFORMATION	
SREF	87.1560 SO.IN.
LREF	19.3545 INCHES
BREF	14.0502 INCHES
XMRP	12.5770 INCHES
YMRP	.0000 INCHES
ZMRP	6.0000 INCHES
SCALE	.0150 SCALE

ELEVTR .000 BOFLAP .000 SPOBRK 24.820 RUDDER .000

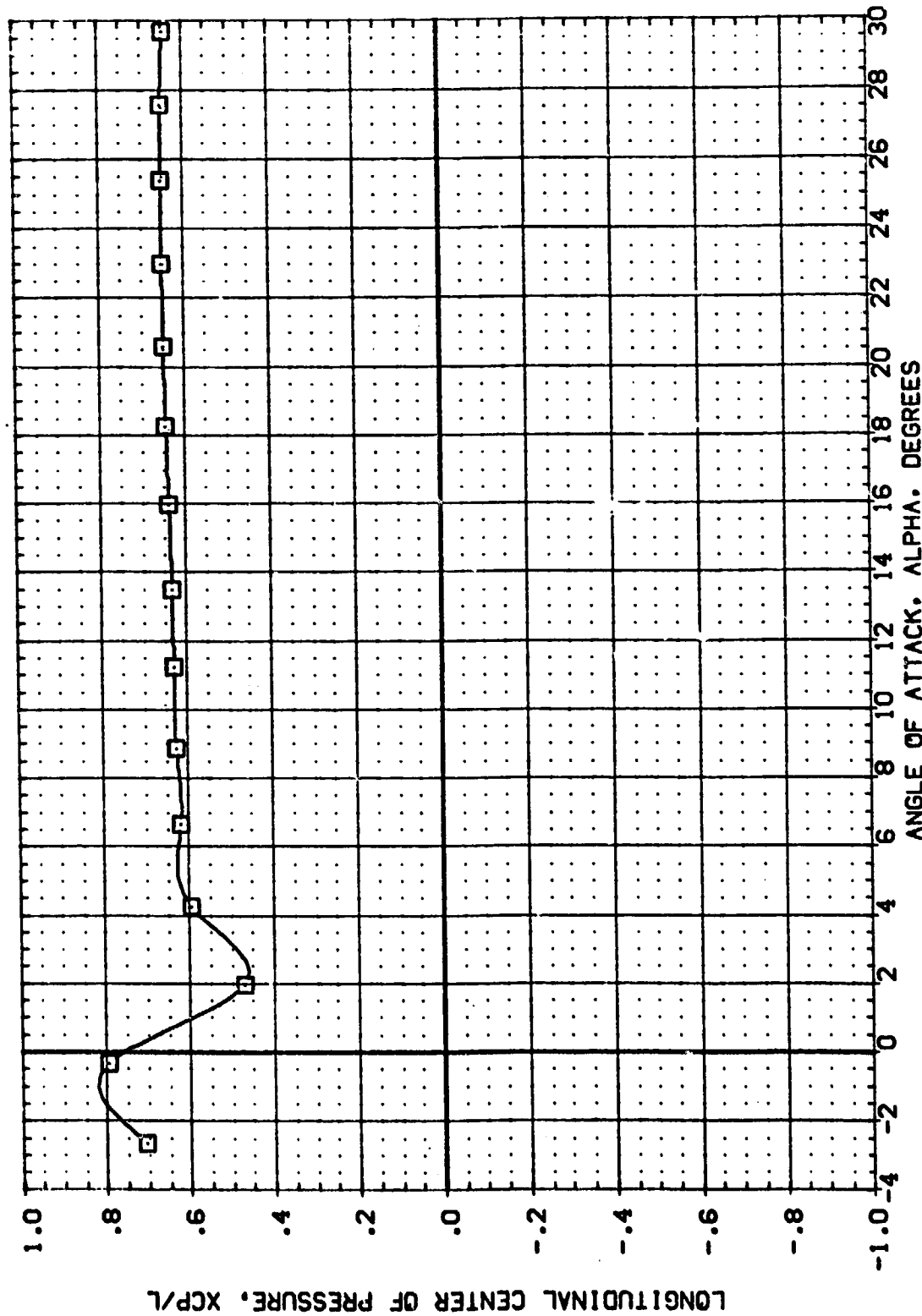


FIGURE 16 139B ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 12.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(APPROX) DATA NOT AVAILABLE

(APPROX) 017.LTPT138.058 3.(B21C7F5M4)(V107E23)(V7R5)

ELEVTR 8DFLAP SPDBRK RUDDER REFERENCE INFORMATION
 .000 .000 .000 SREF 87.1560 SQ.IN.
 .000 .000 .000 LREF 19.3545 INCHES
 .000 .000 .000 BREF 14.0502 INCHES
 .000 .000 .000 XTRP 12.5770 INCHES
 .000 .000 .000 YTRP .0000 INCHES
 .000 .000 .000 ZTRP 6.0000 INCHES
 .000 .000 .000 SCALE .0150 SCALE

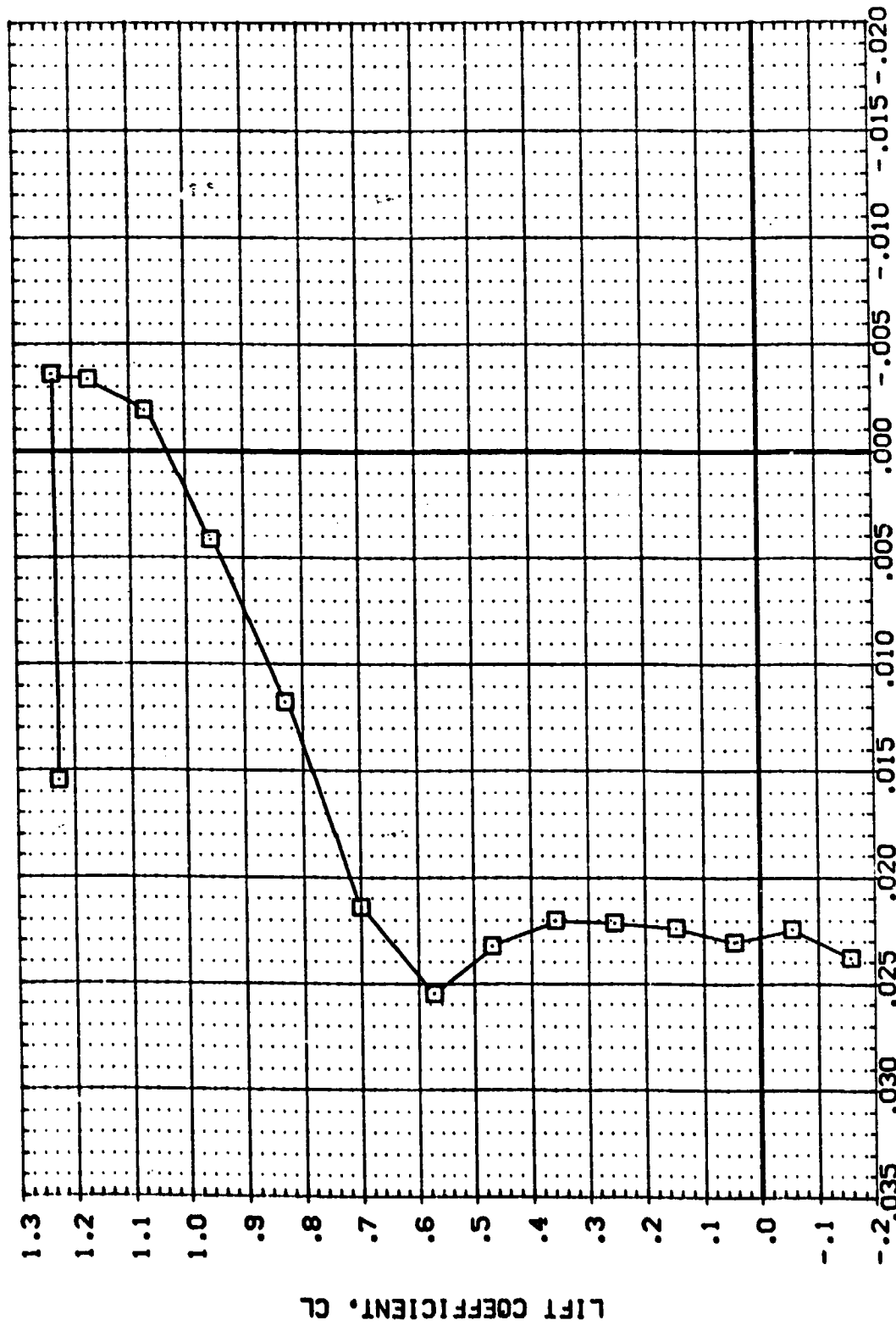


FIGURE 16 1398 ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 12.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (APPO10) DATA NOT AVAILABLE
 (APPO11) 0017.L1PT138.008 3.(821C7F5M4)(V107E23)(V7R5)

ELEVTR BDFLAP SPOBRK RUDDER
 .000 .000 .000 .000
 .000 .000 .000 .000

REFERENCE INFORMATION
 SREF 87.1560 50. IN.
 LREF 19.3545 INCHES
 BREF 14.0502 INCHES
 XTRP 12.5770 INCHES
 YTRP .0000 INCHES
 ZTRP 6.0000 INCHES
 SCALE .0150 SCALE

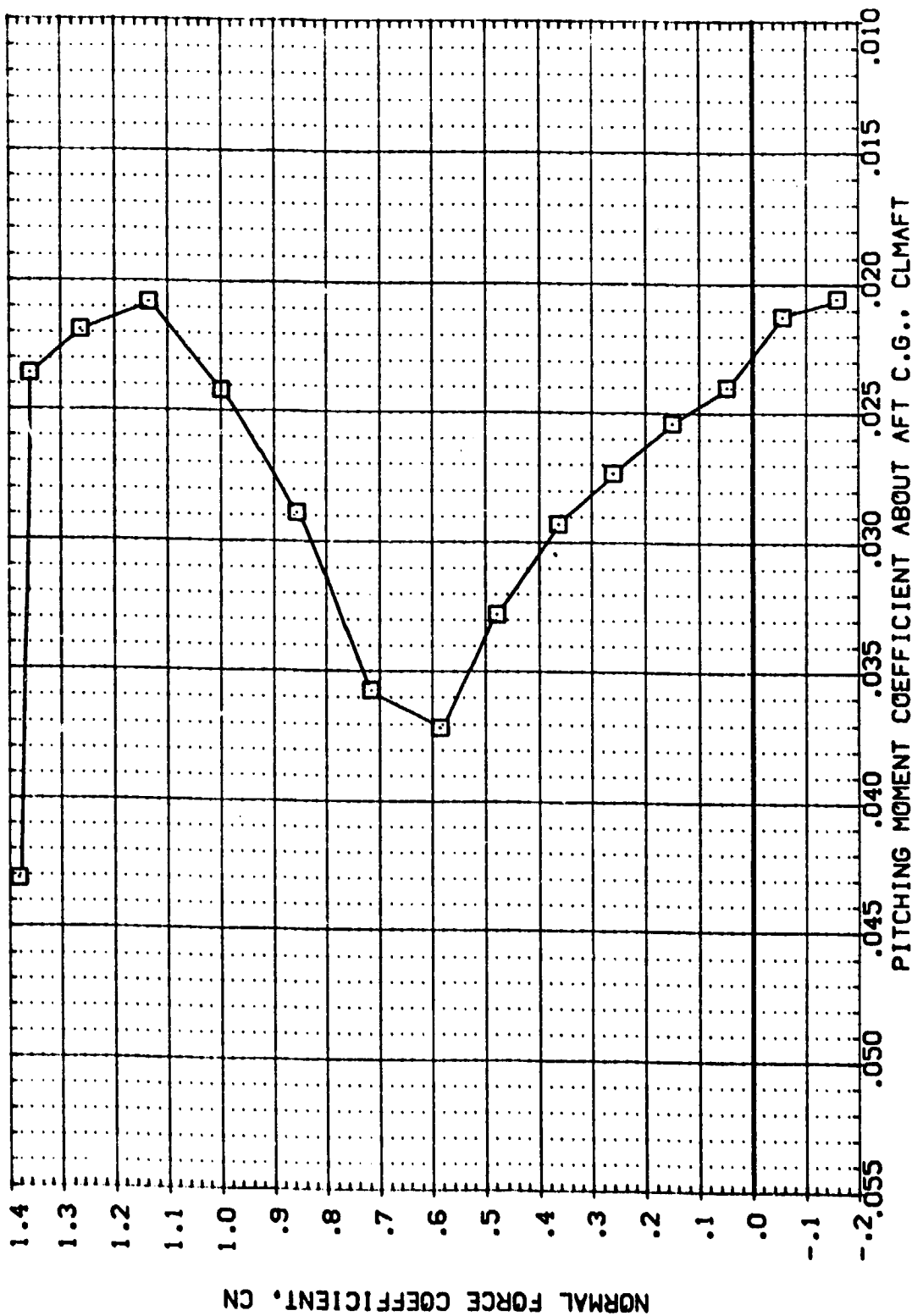


FIGURE 16 139B ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 12.50



DATA SET SYMBOL CONFIGURATION DESCRIPTION DATA NOT AVAILABLE (APPROX) (APPROX) CA17.LTPT138.DR8 3.(B21C7F5M4)(V107E23)(V7R5)

ELEVTR	BOFLAP	SFOBRK	RUDDER	REFERENCE INFORMATION
.000	.000	24.920	.000	SREF 87.1560 50. IN.
.000	.000	.000	.000	LREF 19.3545 INCHES
				BREF 14.0502 INCHES
				XMRP 12.5770 INCHES
				YMRP .0000 INCHES
				ZMRP 6.0000 INCHES
				SCALE .0150 SCALE

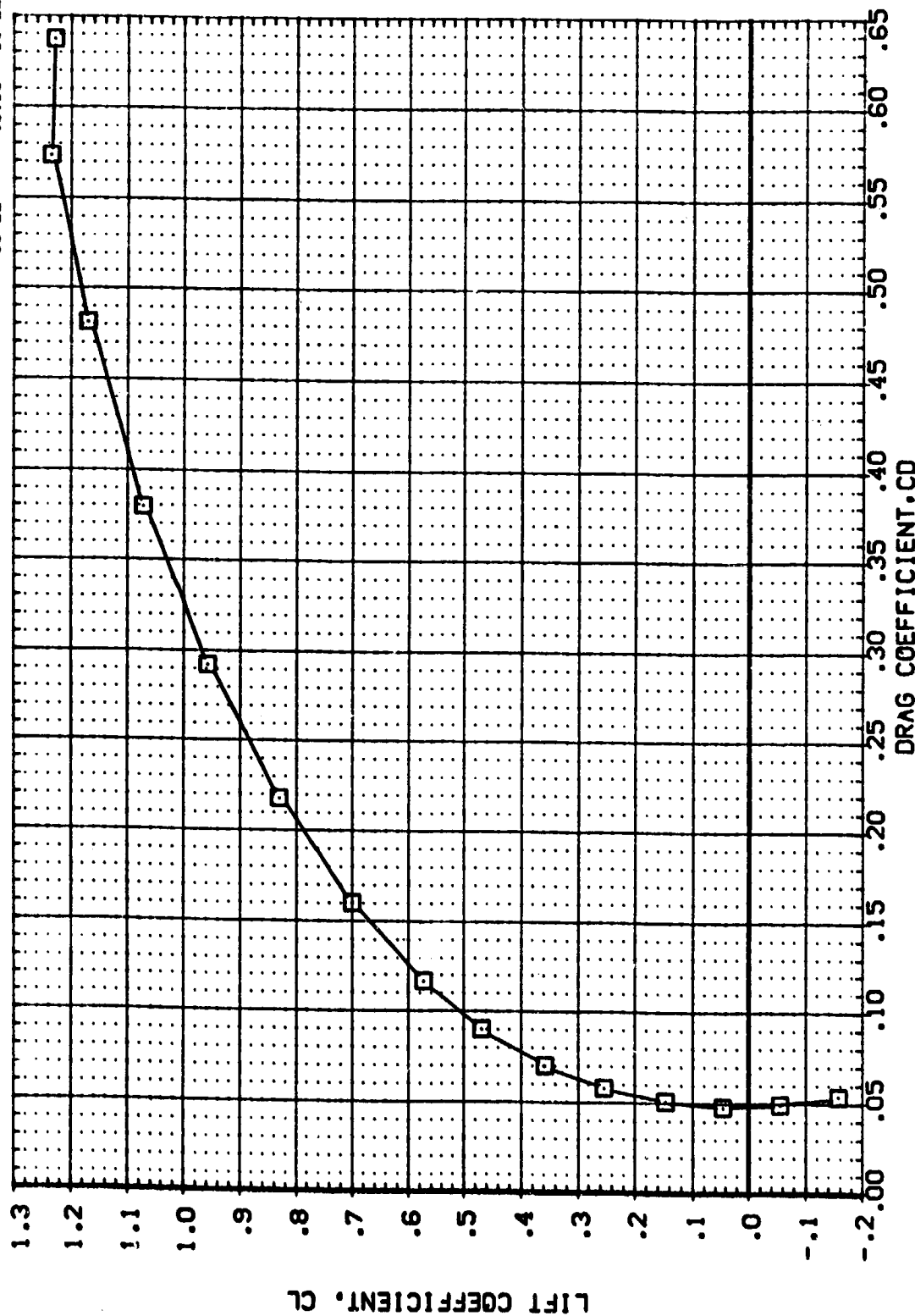


FIGURE 16 139B ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 12.50

DATA SET SYMBOL. CONFIGURATION DESCRIPTION
 (RPP010) DATA NOT AVAILABLE
 (RPP011) CA17.LTPT138.088 3. (821C7594)(V107E23)(V785)

ELEVTR .000 RUDDER .000
 .000 .000 .000 .000
 .000 .000 .000 .000

SPDRBK 24.920
 .000 .000 .000 .000

REFERENCE INFORMATION
 SREF 87.1550 SQ. IN.
 LREF 19.3545 INCHES
 BREF 14.0502 INCHES
 XMRP 12.5770 INCHES
 YMRP .0000 INCHES
 ZMRP 6.0000 INCHES
 SCALE .0150 SCALE

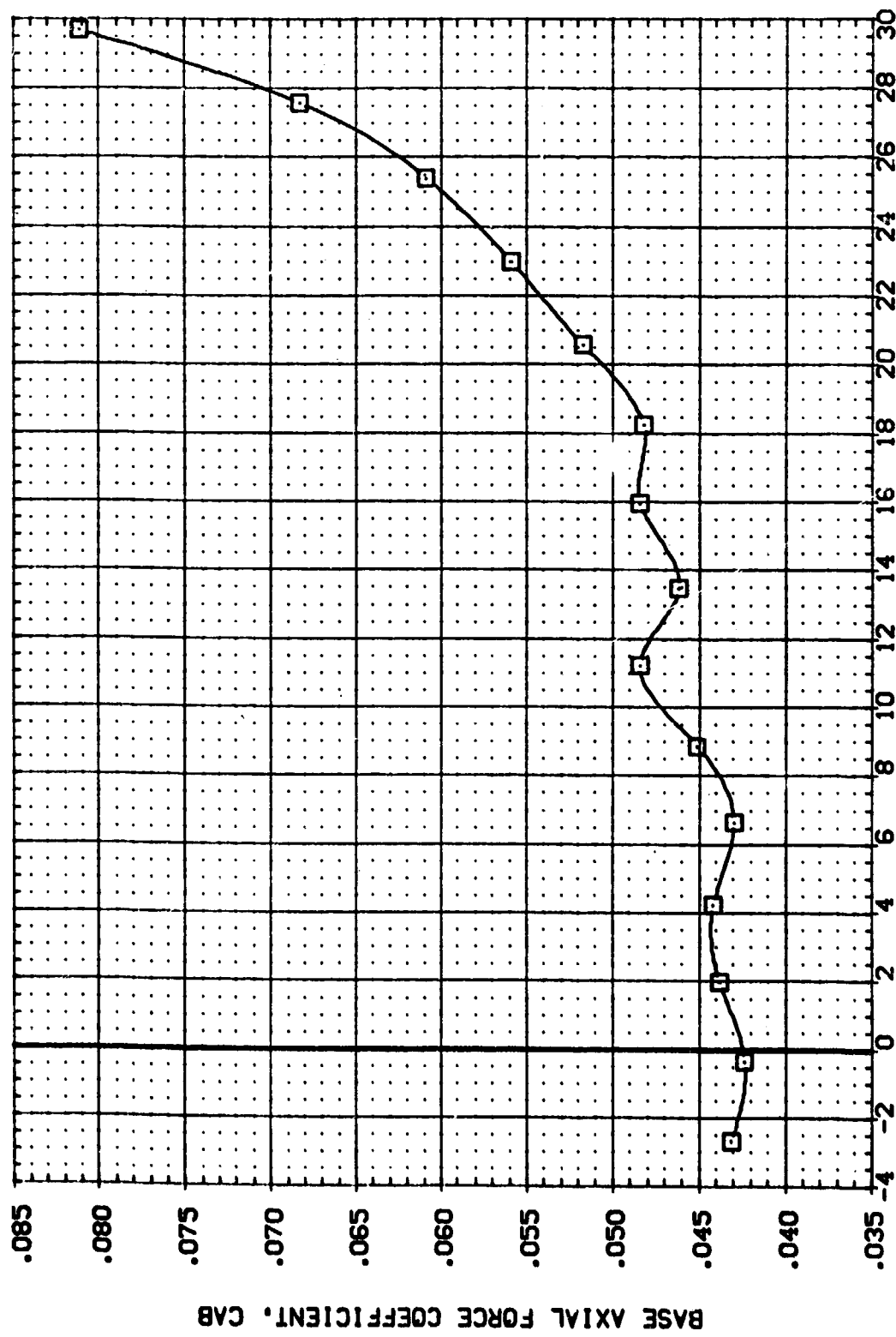


FIGURE 16 139B ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 12.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (APPRO11) ○ 0A17.LTPT138.098 3.(B21C7F5M4)(V107E23)(V7R5)

DSPBRK RUDDER ELEVON 80FLAP
 -24.920 .000 .000 .000

REFERENCE INFORMATION
 SREF 87.1560 SQ.IN.
 LREF 19.3545 INCHES
 BREF 14.0502 INCHES
 XPRP 12.5770 INCHES
 YPRP .0000 INCHES
 ZPRP 6.0000 INCHES
 SCALE .0150 SCALE

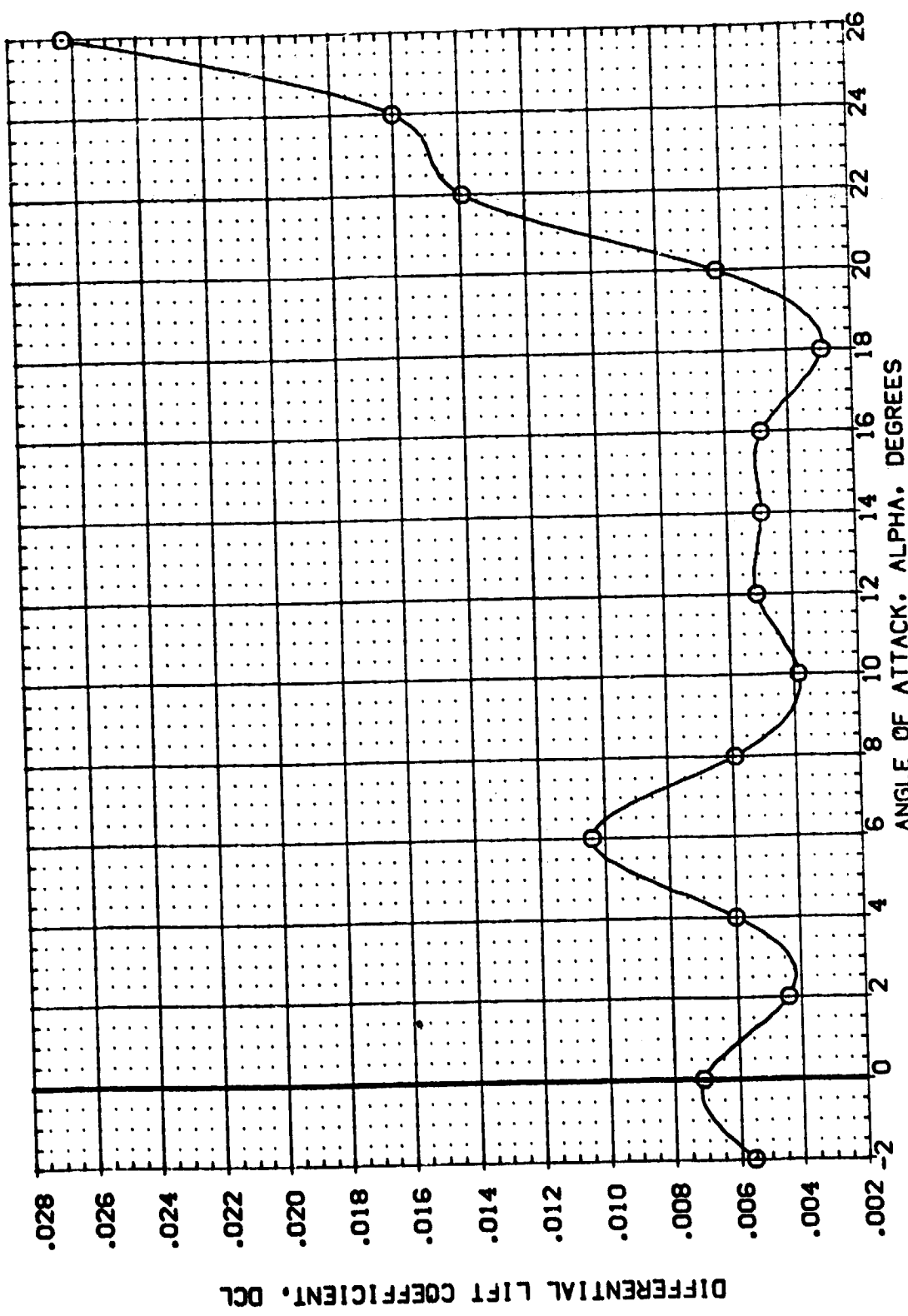
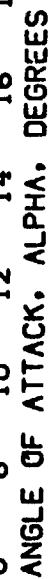


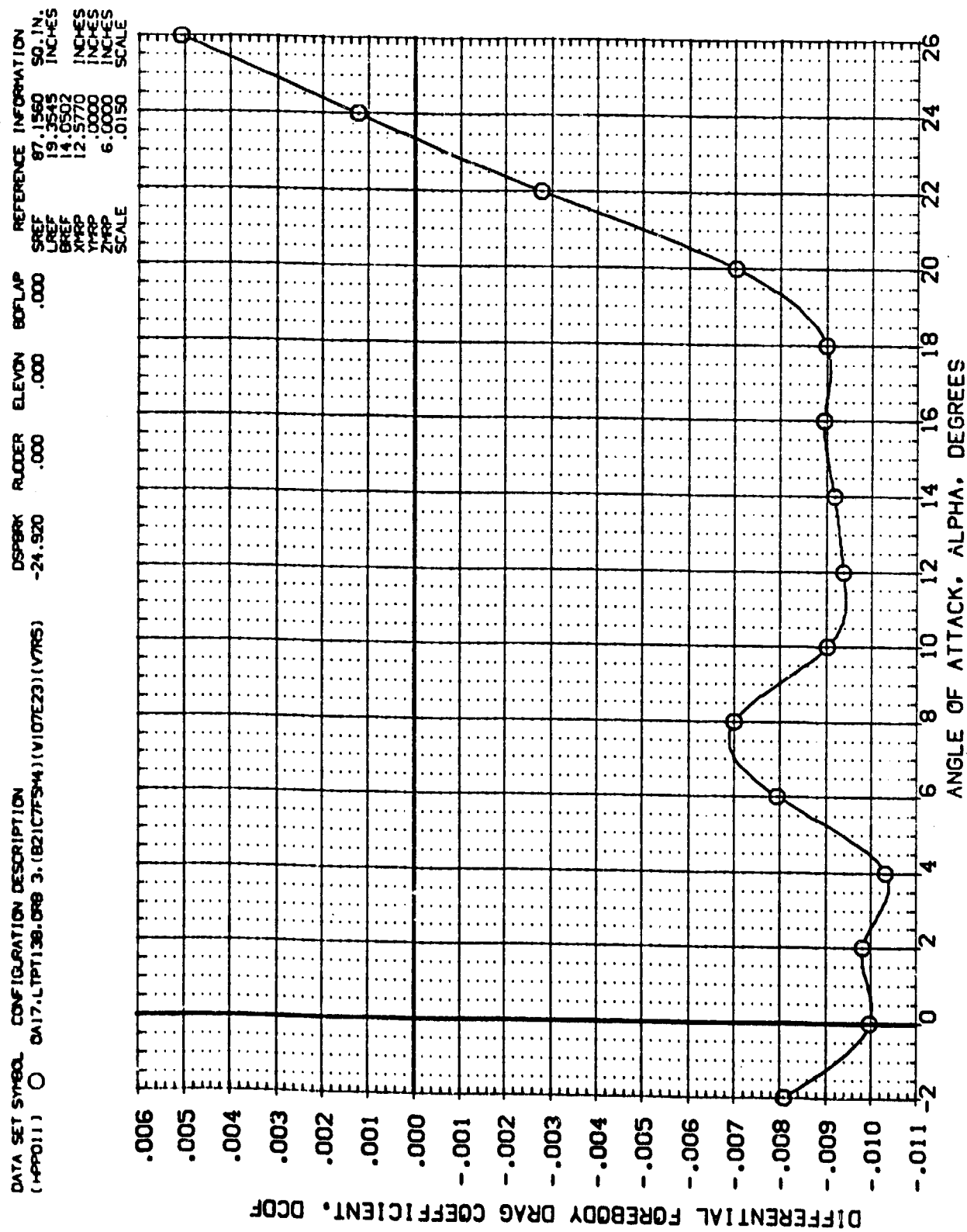
FIGURE 17 139B ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 4.70

ATION
59. IN.

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
14690111	0A17.LTPT138.ORB 3.(B21C7FS9


$$[A]_{RN/L} = 4.70$$



REFERENCE INFORMATION	
SREF	87.1560 SO.IN.
LREF	19.3545 INCHES
BREF	14.0502 INCHES
XMRP	12.5770 INCHES
YMRP	.0000 INCHES
ZMRP	6.0000 INCHES
SCALE	.0150 SCALE


$$(\Delta)_{RN/L} = 4.70$$

DATA SET SYMBOL ○ 0A17.LTPT138.098 3.(B21C7F5H4)(V10TE23)(V7R5)

CONFIGURATION DESCRIPTION
 D5PBK RUDER ELEVON BDFLAP
 -24.920 .000 .000 .000

REFERENCE INFORMATION
 SREF 87.1560 50.IN.
 LREF 19.3545 INCHES
 BREF 14.0502 INCHES
 YMRP 12.5770 INCHES
 YMRP 6.0000 INCHES
 ZMRP 6.0000 INCHES
 SCALE .0150 SCALE

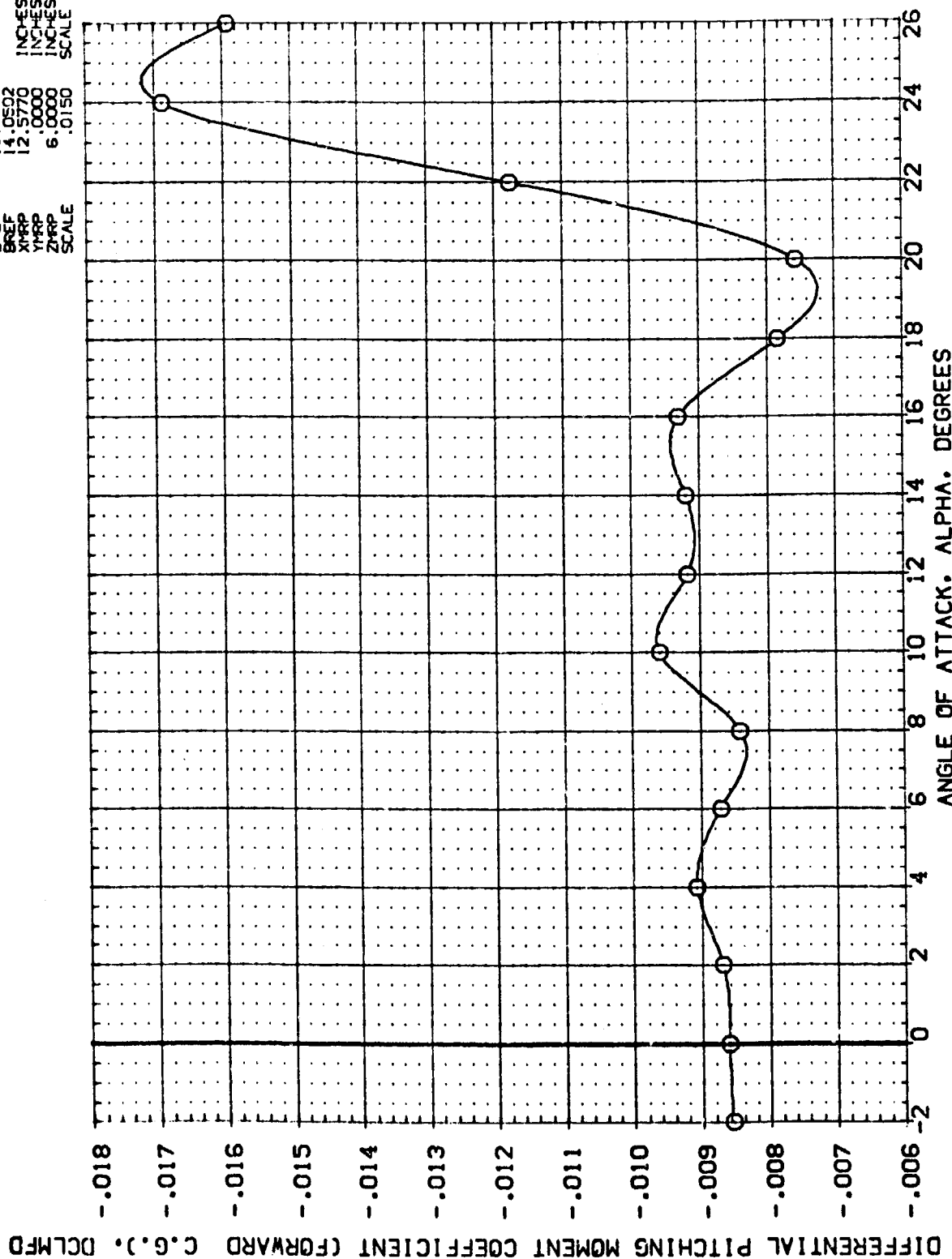


FIGURE 17 139B ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 4.70



DATA SET SYMBOL CONFIGURATION DESCRIPTION DSRBRK RUDDER ELEVON BOFLAP REFERENCE INFORMATION

(HPP011)	0	0A17-LTPT138.058 3.(B21C7F5H4)(V107E23)(V7R5)	-24.920	.000	.000	.000	SREF	87.1560	50. IN.
							LREF	19.3545	INCHES
							BREF	14.0502	INCHES
							XMRP	12.5770	INCHES
							YMRP	.0000	INCHES
							ZMRP	6.0000	INCHES
							SCALE	.0150	SCALE

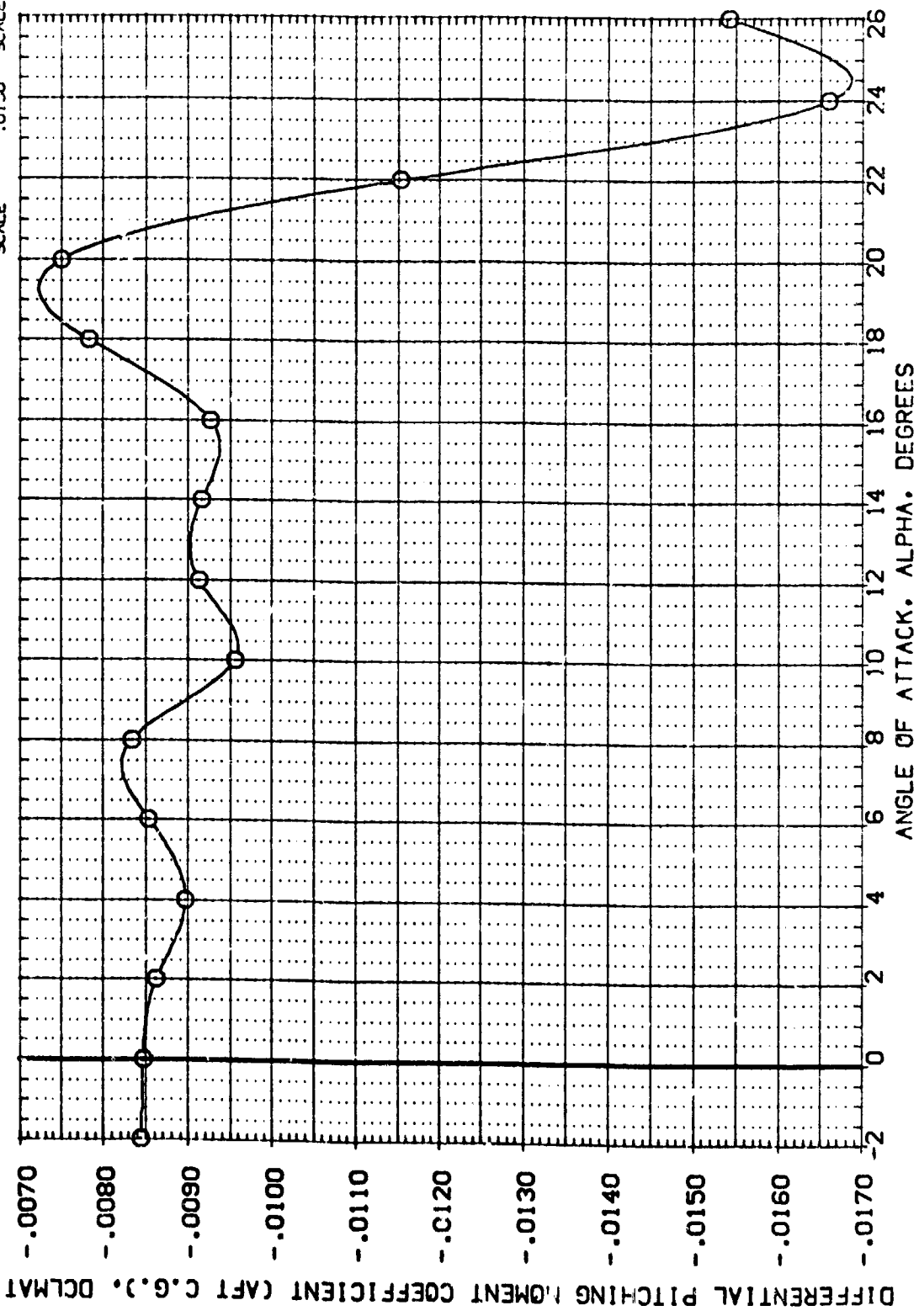


FIGURE 17 1398 ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(AJRN/L = 4.70

DATA SET SYMBOL: (FPP011) CONFIGURATION DESCRIPTION: 0A17.LTPT138.0R8 3.(B21C7F5'4)(V107E23)(V7R51) DSEPBRK: -24.920 RUDDER: .000 ELEVON: .000 BDFLAP: .000

REFERENCE INFORMATION:
 SREF: 87.1560 INCHES
 LREF: 19.2545 INCHES
 BREF: 14.0502 INCHES
 XMRP: 12.5770 INCHES
 YMRP: .0000 INCHES
 ZMRP: 6.0000 INCHES
 SCALE: .0150 SCALE

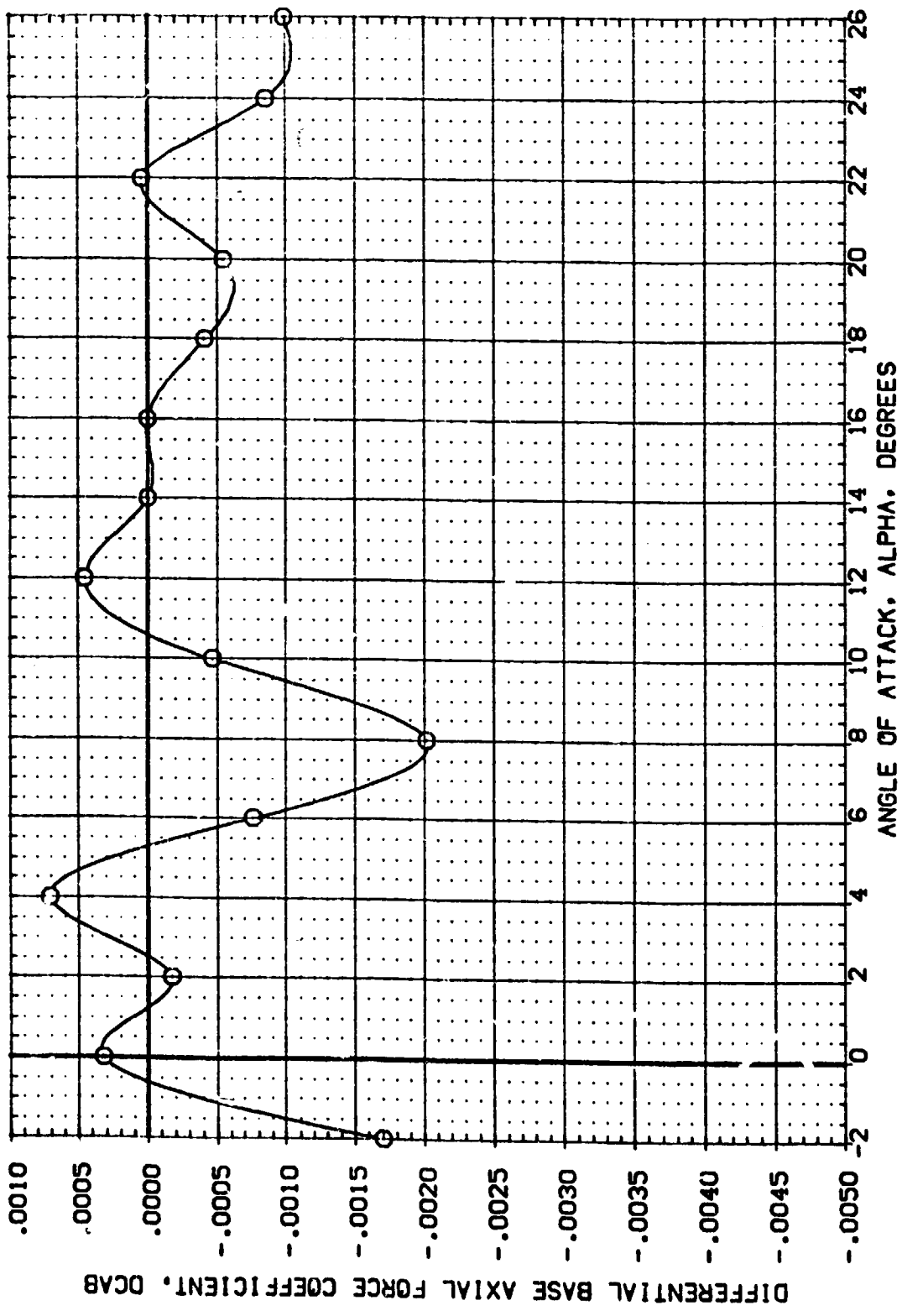


FIGURE 17 1CJB ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(MPO11) O DA17.LTPT138.058 3.(B21C7F5M)(V107E231(V7MS)

DSBRY -24.920

RUDER .000

ELEVON .000

EDFLAP .000

REFERENCE INFORMATION
SREF 87.1560 50. IN.
LREF 19.3545 INCHES
BREF 14.0502 INCHES
XMRP 12.5770 INCHES
YMRP .0000 INCHES
ZMRP 6.0000 INCHES
SCALE .0150

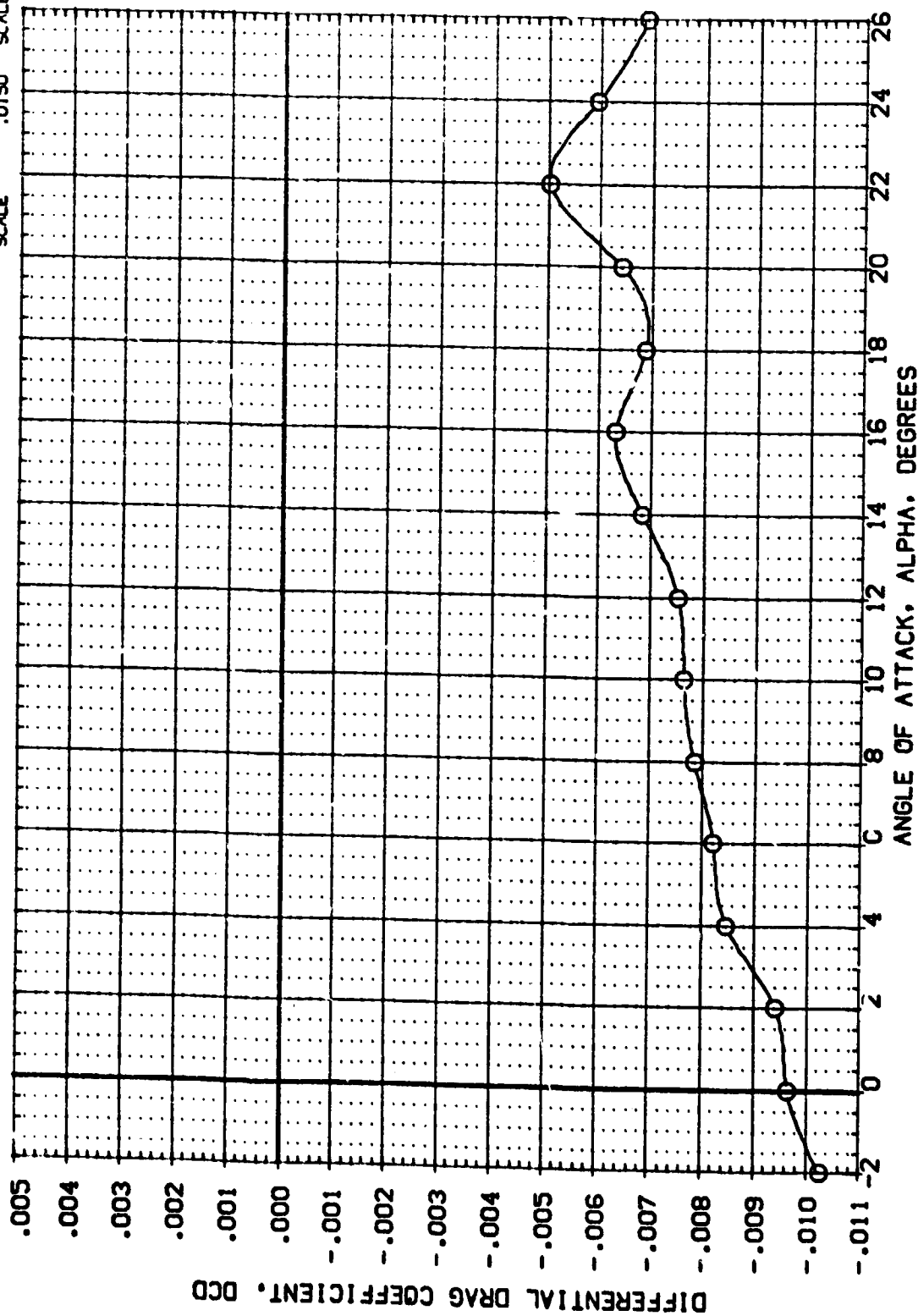


FIGURE 17 1398 ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(A) RN/L = 10.00

DATA SET SYMBOL: 0117-LTPT138-098 3.(821C7N5M)(V107E23)(V7R5)

CONFIGURATION DESCRIPTION: ORBITER (MOD NOSE)

OSPRK: -24.920

RLOOR: .000

ELEVON: .000

BOFLAP: .001

REFERENCE INFORMATION:

SREF	87.1560	50. IN.
LREF	19.3545	INCHES
BREF	14.0502	INCHES
YREF	12.5770	INCHES
ZREF	6.0000	INCHES
SCALE	.0150	SCALE

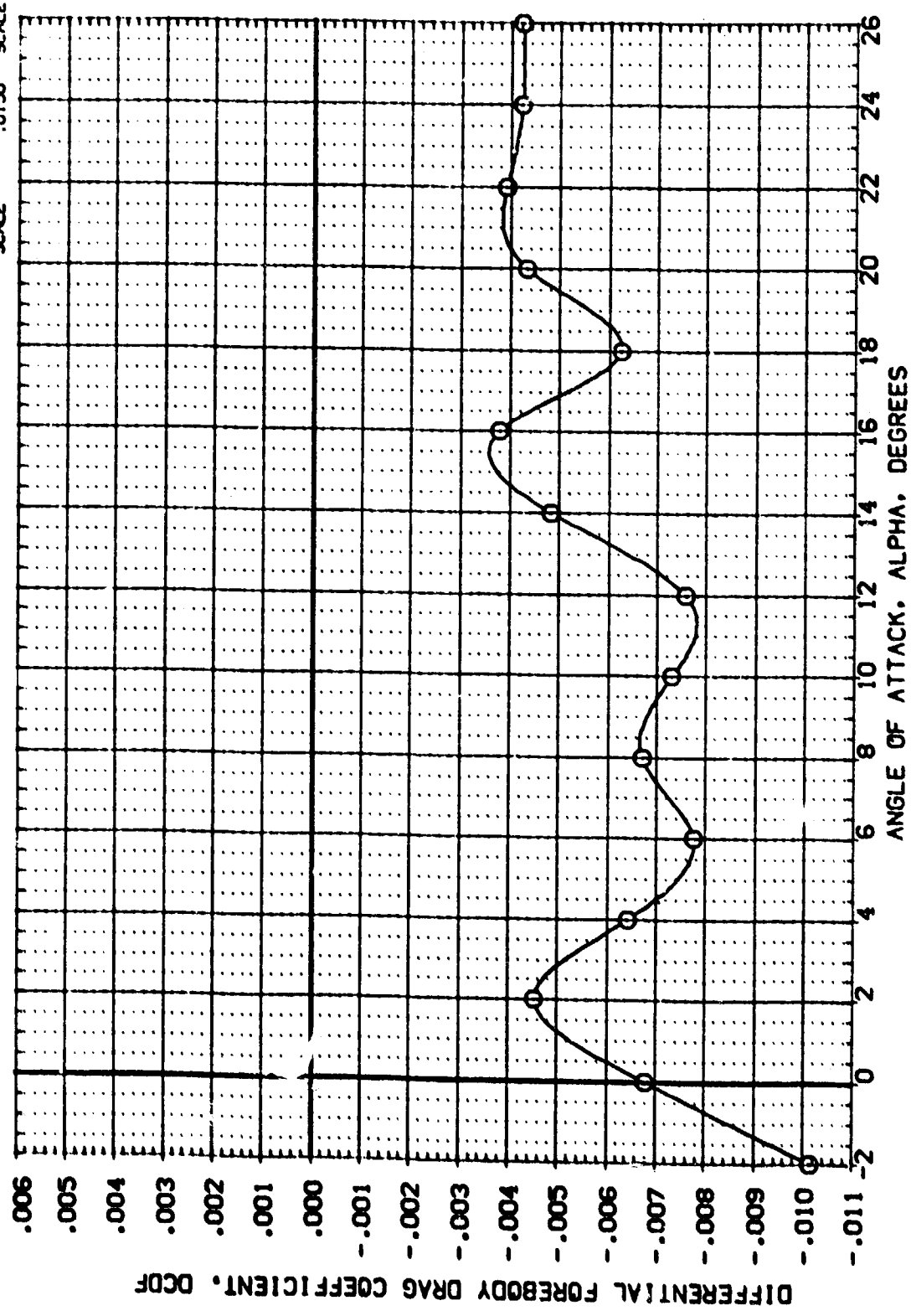


FIGURE 17 1398 ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(MPO11) O 0A17.LTPT138.0R8 3.(821C7F5M4)(V107E23)(V7R5)

DSBRK FLDDR ELEVON BDFLAP
-24.920 .000 .000 .000

REFERENCE INFORMATION
SREF 87.1560 SQ. IN.
LREF 19.3345 INCHES
BREF 14.0502 INCHES
XREF 12.5770 INCHES
YREF .0000 INCHES
ZREF 6.0000 INCHES
SCALE .0150 SCALE

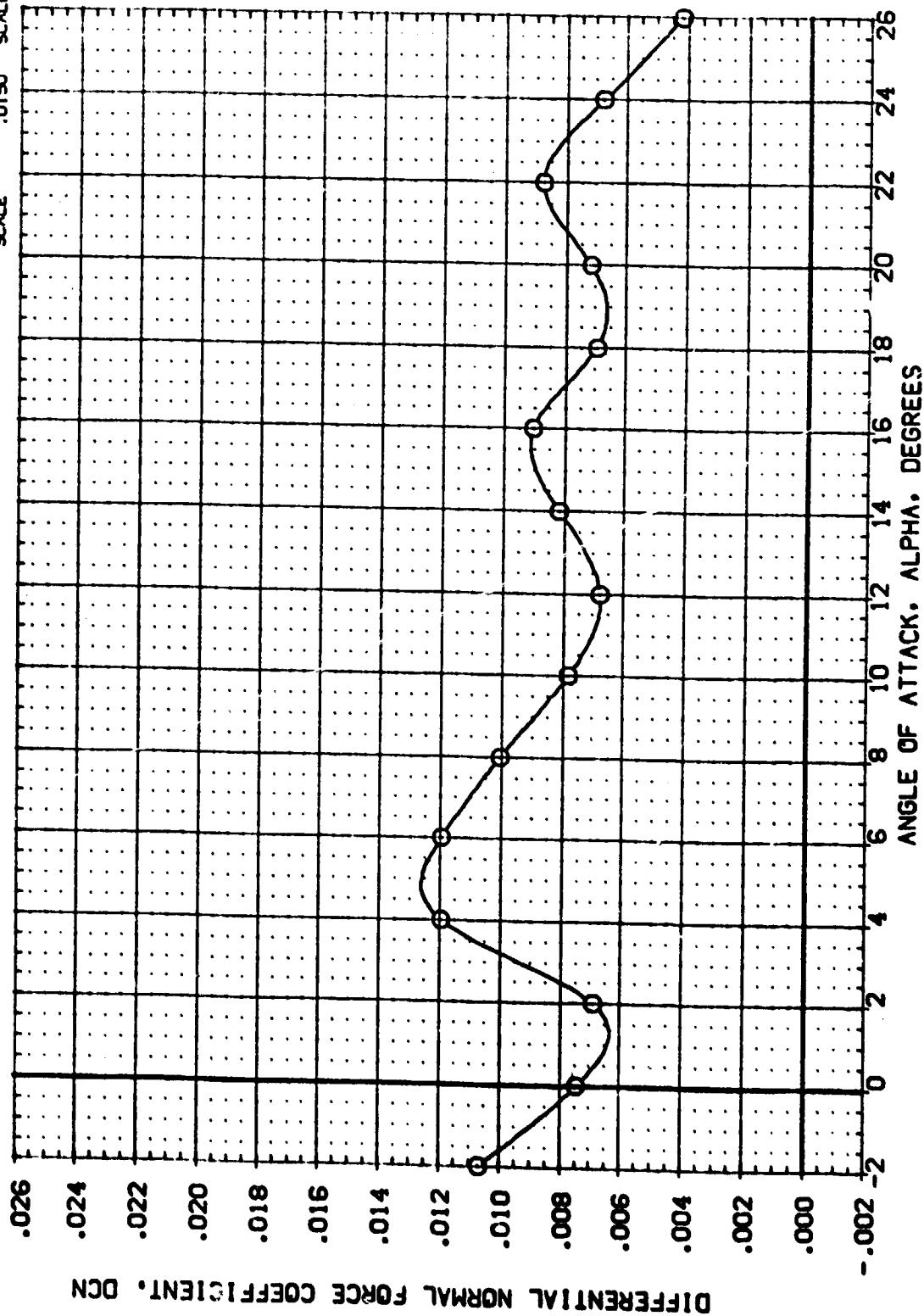


FIGURE 17 1398 ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 10.00



DATA SET SYMBOL: (440011) ☐ DATA SET SYMBOL: (440011) ☐ CONFIGURATION DESCRIPTION: 017.138.008 3. (821C7594) (V107E23) (V7R5)

OSPBK: -24.920 RUDDER: .000 ELEVON: .000 BOFLAP: .000

REFERENCE INFORMATION:

REF	SO. IN
SREF	87.1560
LREF	19.3545
BREF	14.0502
VREF	12.5770
WREF	6.0000
ZREF	6.0000
SCALE	.0150

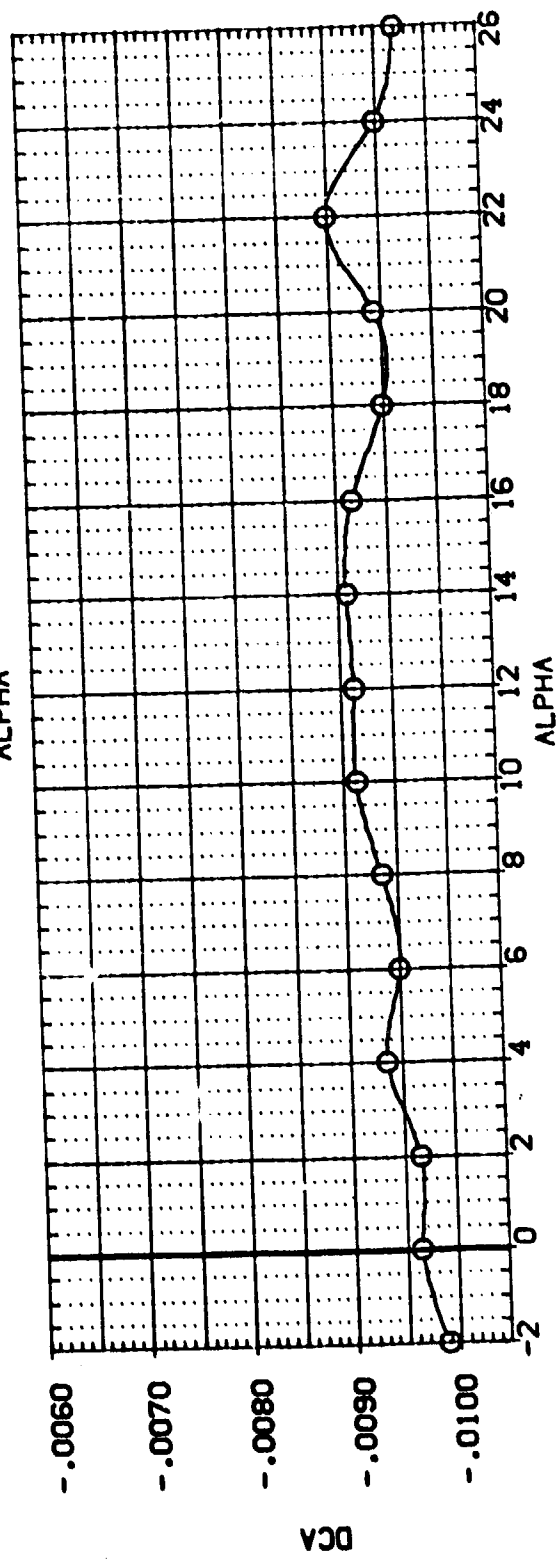
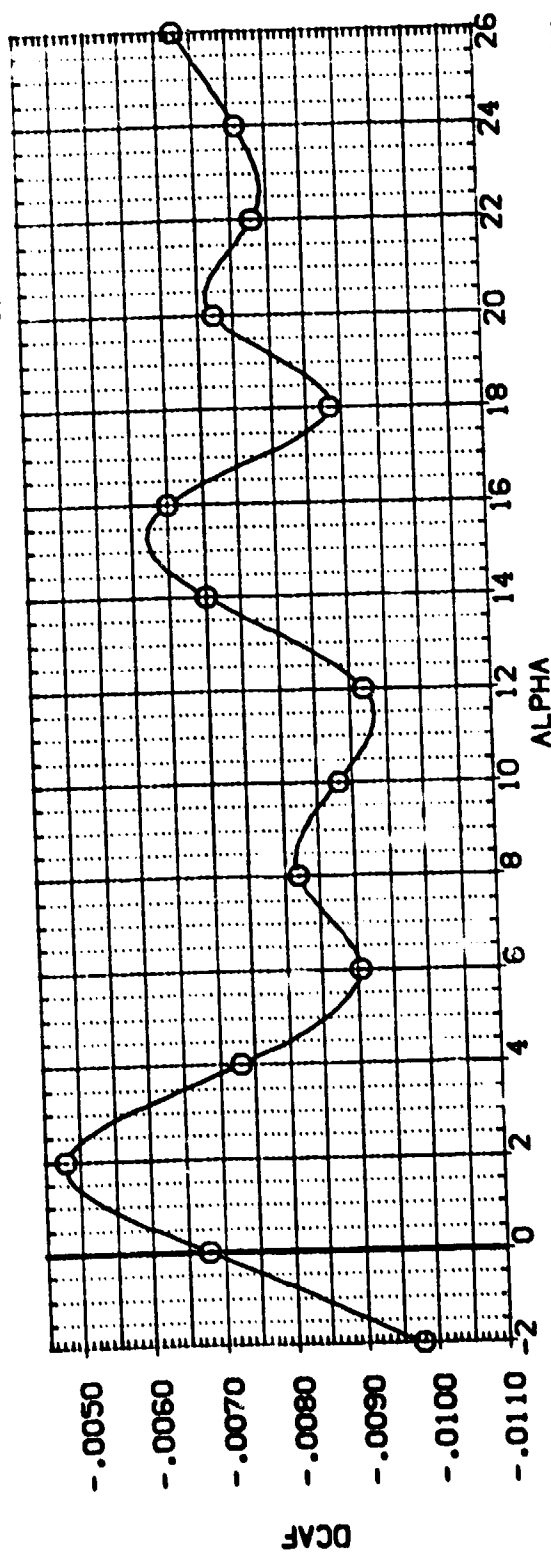


FIGURE 17 1398 ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (H4011) ○ 0A17-LTPT138-098 3. (B21C7F5H4)(V107E23)(V7R5)

DSBRK	RODER	ELEVON	BOFLAP	REFERENCE INFORMATION	
-24.520	.000	.000	.000	SREF	87.1560
				LREF	19.3545
				BREF	14.0502
				XTRP	12.5770
				YTRP	.0000
				ZTRP	6.0000
				SCALE	.0150
					SO. IN.
					INCHES
					INCHES
					INCHES
					SCALE

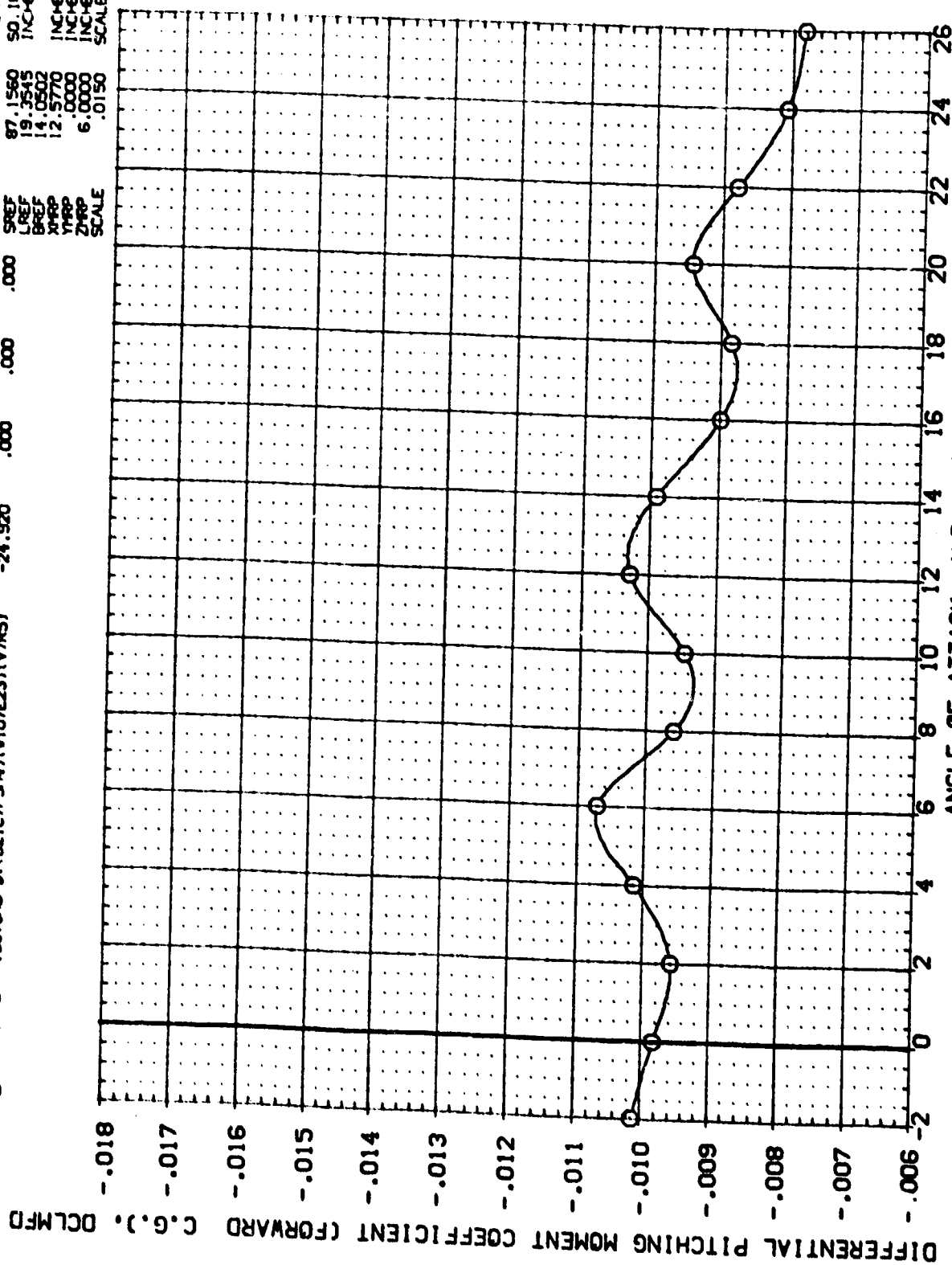
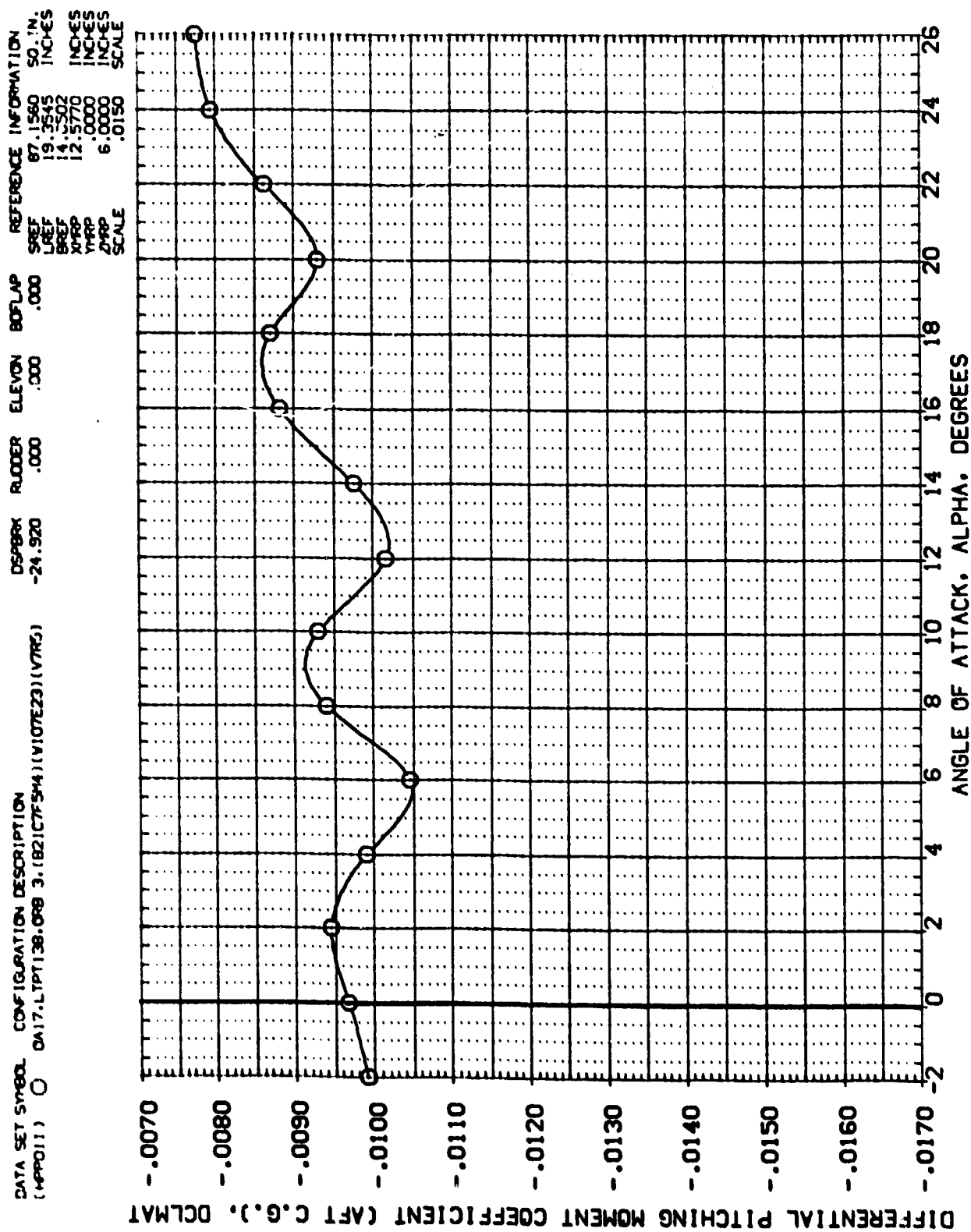


FIGURE 17 1398 ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS
 (AJRN/L = 10.00)


$$[A]_{RN/L} = 10.00$$

PAGE 373

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DISPERK	RUDDER	ELEVON	BD/FLAP	REFERENCE INFORMATION
(FPP011) ○	0A17.L1P1138.038 3.(B21C7F54)(V107E23)(V7R5)	-24.920	.000	.000	.000	SREF 87.1560 50.IN.
						LREF 19.3545 INCHES
						BREF 14.0502 INCHES
						XTRP 12.5770 INCHES
						YTRP 6.0000 INCHES
						ZTRP 6.0000 INCHES
						SCALE .0150

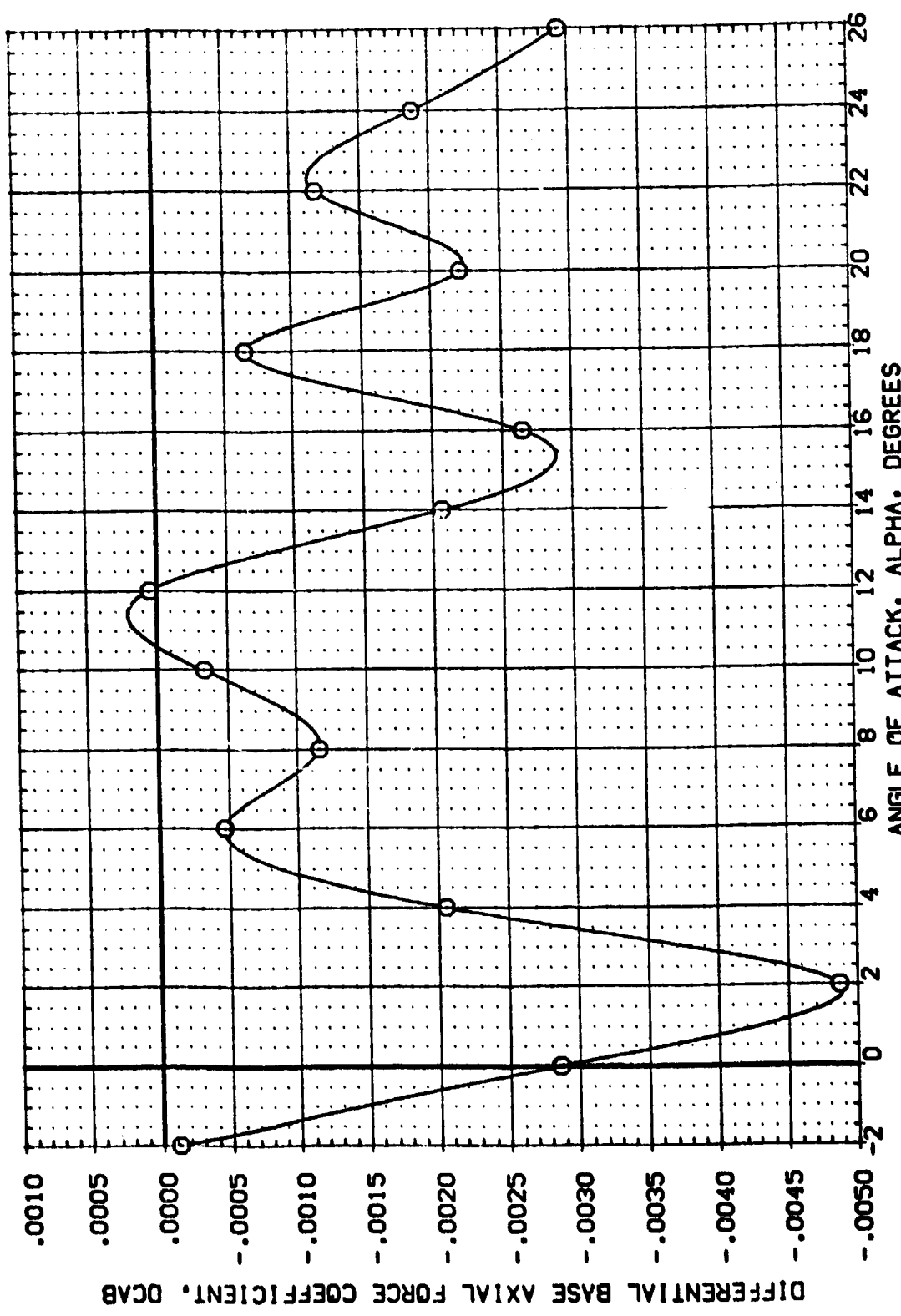
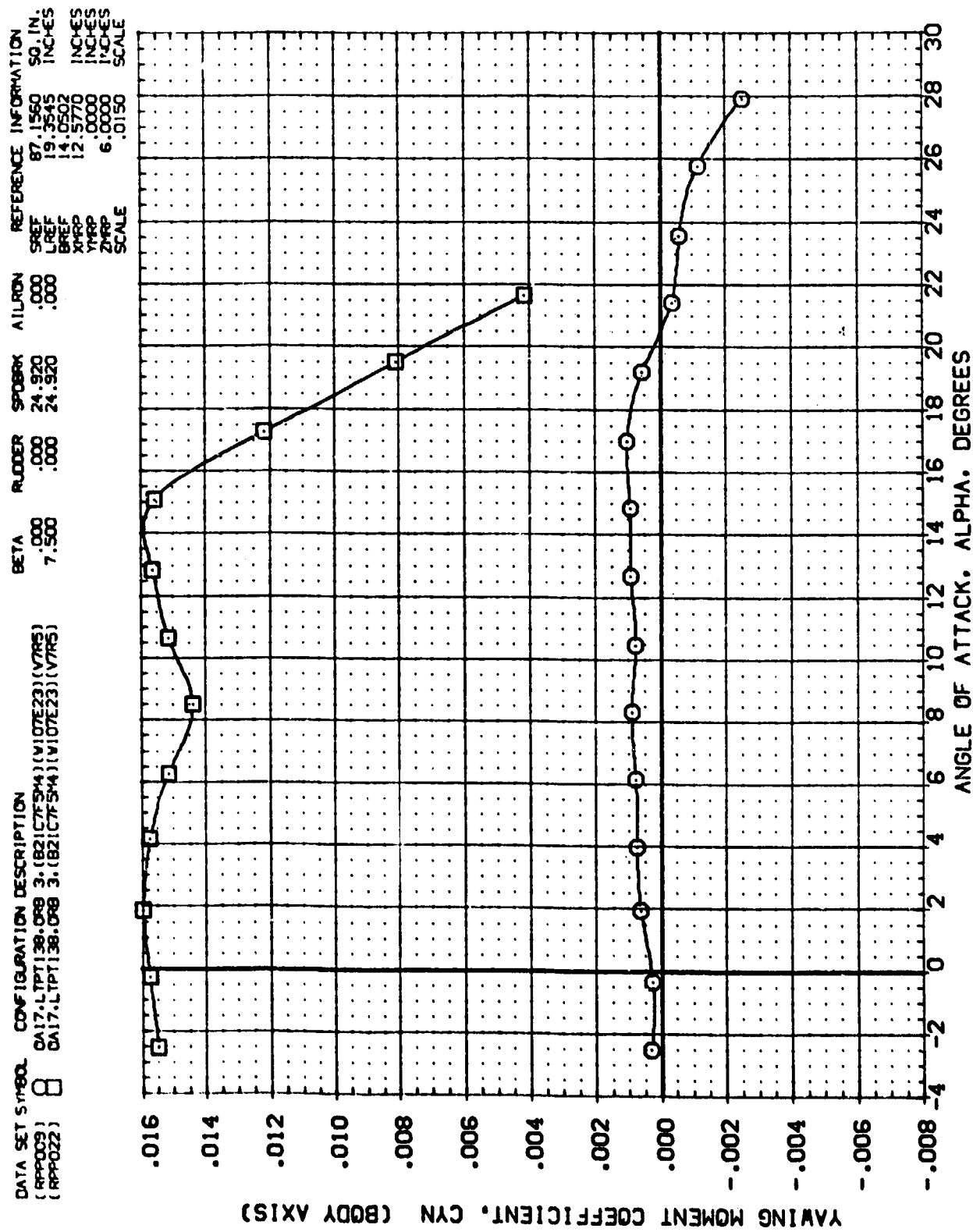


FIGURE 17 1398 ORBITER (MOD NOSE) SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 10.00


$$[A]_{RN/L} = 4.70$$

DATA SET SYMBOL: ☐ 0A17.L1PT138.008 3.(82)C7FS41(V107E23)(V7RS)
 (RPO022) 0A17.L1PT138.008 3.(82)C7FS41(V107E23)(V7RS)

CONFIGURATION DESCRIPTION

BETA: .000
 7.500

RUDER: .000
 .000

SPDRK: 24.920
 24.920

AIRLON: .000
 .000

REFERENCE INFORMATION

SREF: 87.1560 50. IN.
 LREF: 19.3545 INCHES
 BREF: 14.0502 INCHES
 XTRP: 12.5770 INCHES
 YTRP: .0000 INCHES
 ZTRP: 6.0000 INCHES
 SCALE: .0150

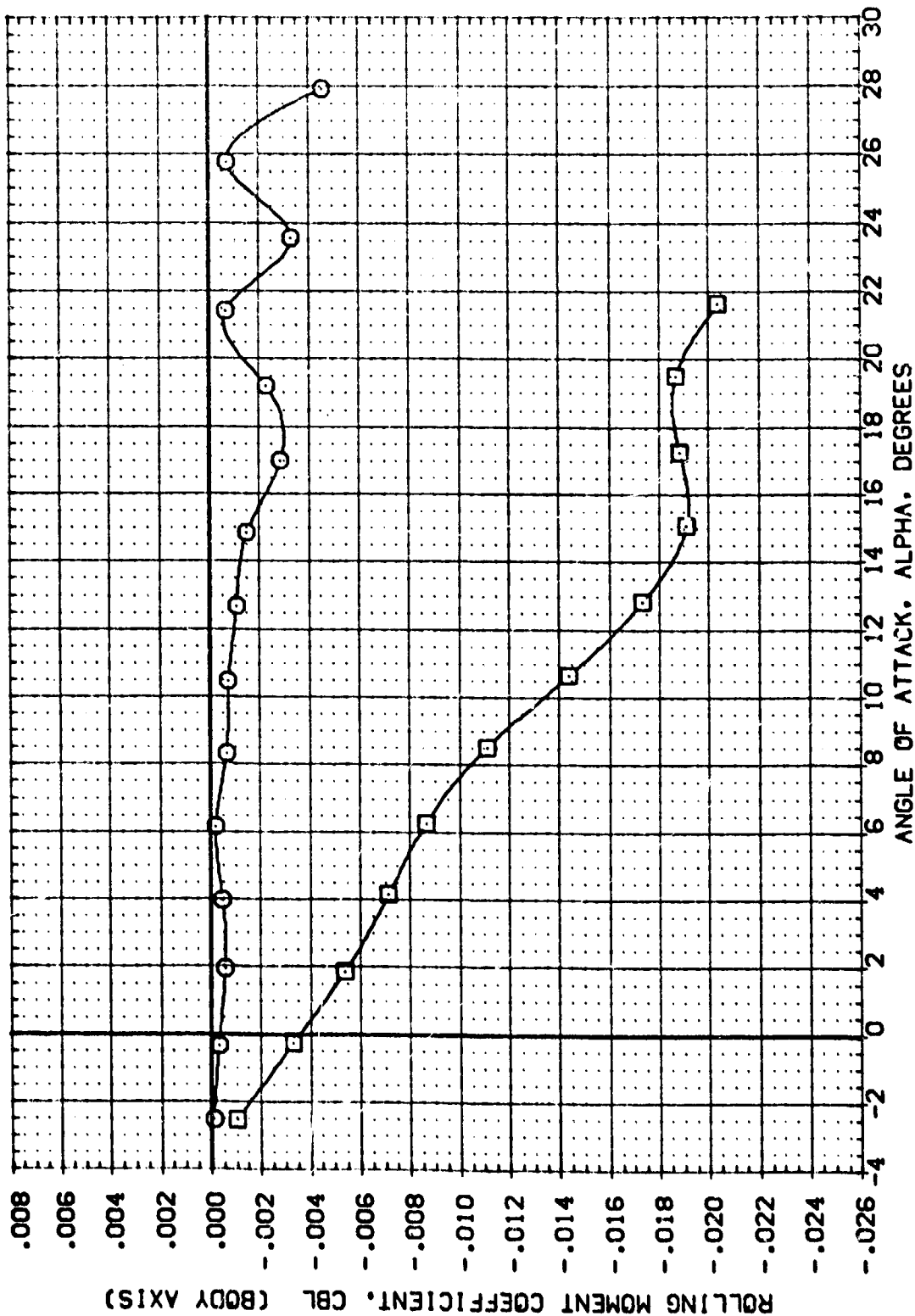


FIGURE 18 139B ORBITER (MOD NOSE) LATERAL DIRECTIONAL YAW POLAR

(A)RN/L = 4.70

DATA SET SYMBOL		CONFIGURATION DESCRIPTION	BETA	RUDER	SPOBRK	AILRON	REFERENCE INFORMATION	
(RPP009)	□	CA17.L1PT138.DR8 3.(B21C75M4)(V107E23)(V7R5)	.000	.000	24.920	.000	SREF	87.1560
(RPP022)	□	CA17.L1PT138.DR8 3.(B21C75M4)(V107E23)(V7R5)	7.500	.000	24.920	.000	LREF	19.3545
							BREF	14.0502
							XMRP	12.5770
							YMRP	6.0000
							ZMRP	6.0000
							SCALE	.0150
								INCHES
								INCHES
								SCALE

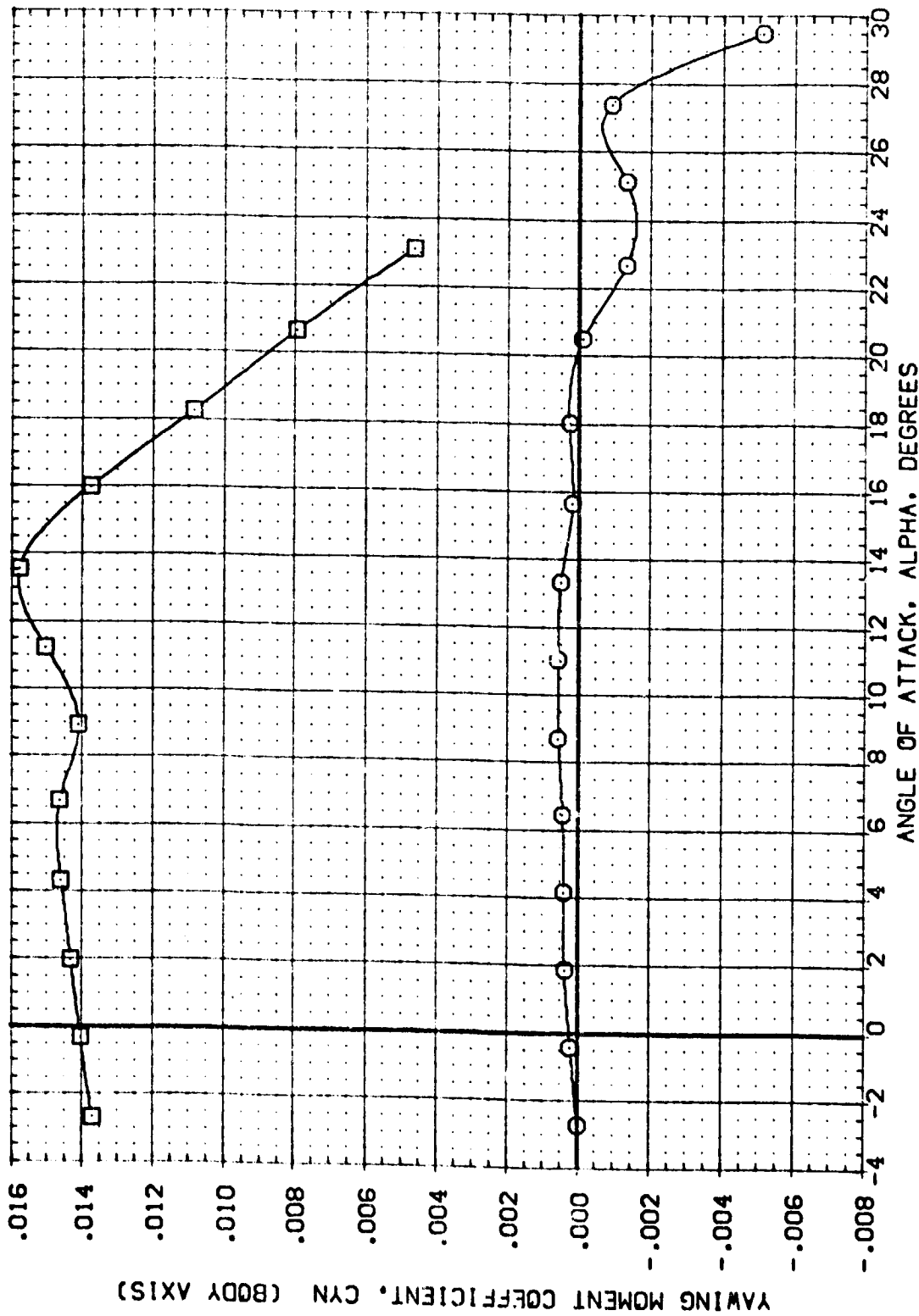


FIGURE 18 139B ORBITER (MOD NOSE) LATERAL DIRECTIONAL YAW POLAR

(AJRN/L = 10.00



DATA SET SYMBOL CONFIGURATION DESCRIPTION BETA RUDDER SPDBRY AILRON REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	RUDDER	SPDBRY	AILRON	REFERENCE INFORMATION
(RPP-009)	CA17.LTPT138.0RB 3.(B2 C7F5H4)(W107E23)(V7R5)	.000	.000	24.920	.000	SREF 87.1560 SQ.IN.
(RPP-022)	CA17.LTPT136.0RB 3.(B2 C7F5H4)(W107E23)(V7R5)	7.500	.000	24.920	.000	LREF 19.3545 INCHES
						BREF 14.0502 INCHES
						XMRP 12.5770 INCHES
						YMRP .0000 INCHES
						ZMRP 6.0000 INCHES
						SCALE .0150

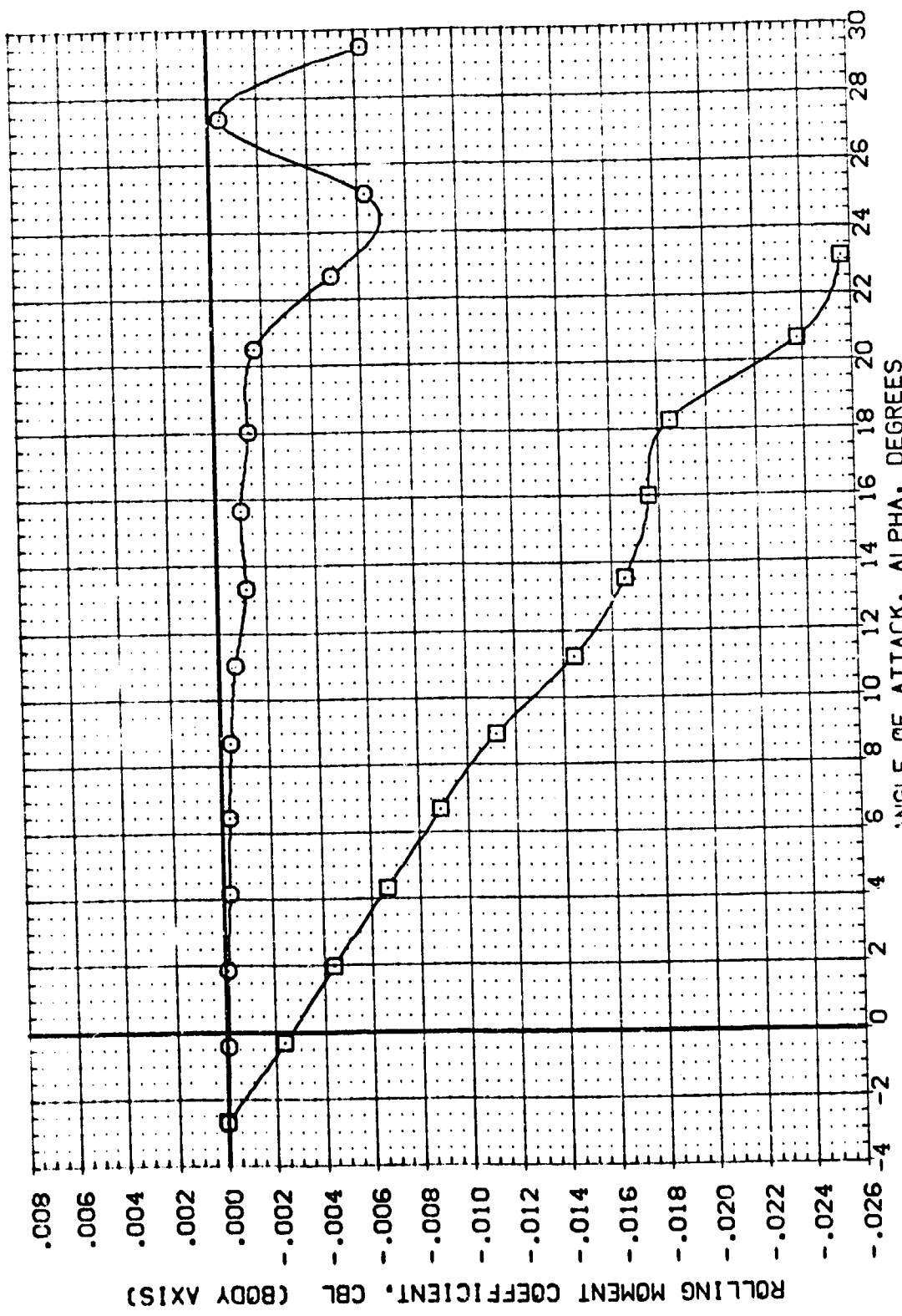


FIGURE 18 139B ORBITER (NOSE) LATERAL DIRECTIONAL YAW POLAR

(A) RN/L = 10.00

DATA SET SYMBOL		CONFIGURATION DESCRIPTION	BETA	RUDDER	SPOILER	AILERON	REFERENCE INFORMATION	
(RPO09)	□	CA17.LTPT138.088 3.(821C7F5M4)(V107E23)(V7RS)	.000	.000	24.920	.000	SREF	87.1560
(RPO22)	□	CA17.LTPT138.088 3.(821C7F5M4)(V107E23)(V7RS)	7.500	.000	24.920	.000	LREF	19.3545
							BREF	12.0502
							XMRP	12.5770
							YMRP	.0000
							ZMRP	6.0000
							SCALE	.0150
								INCHES
								INCHES
								SCALE

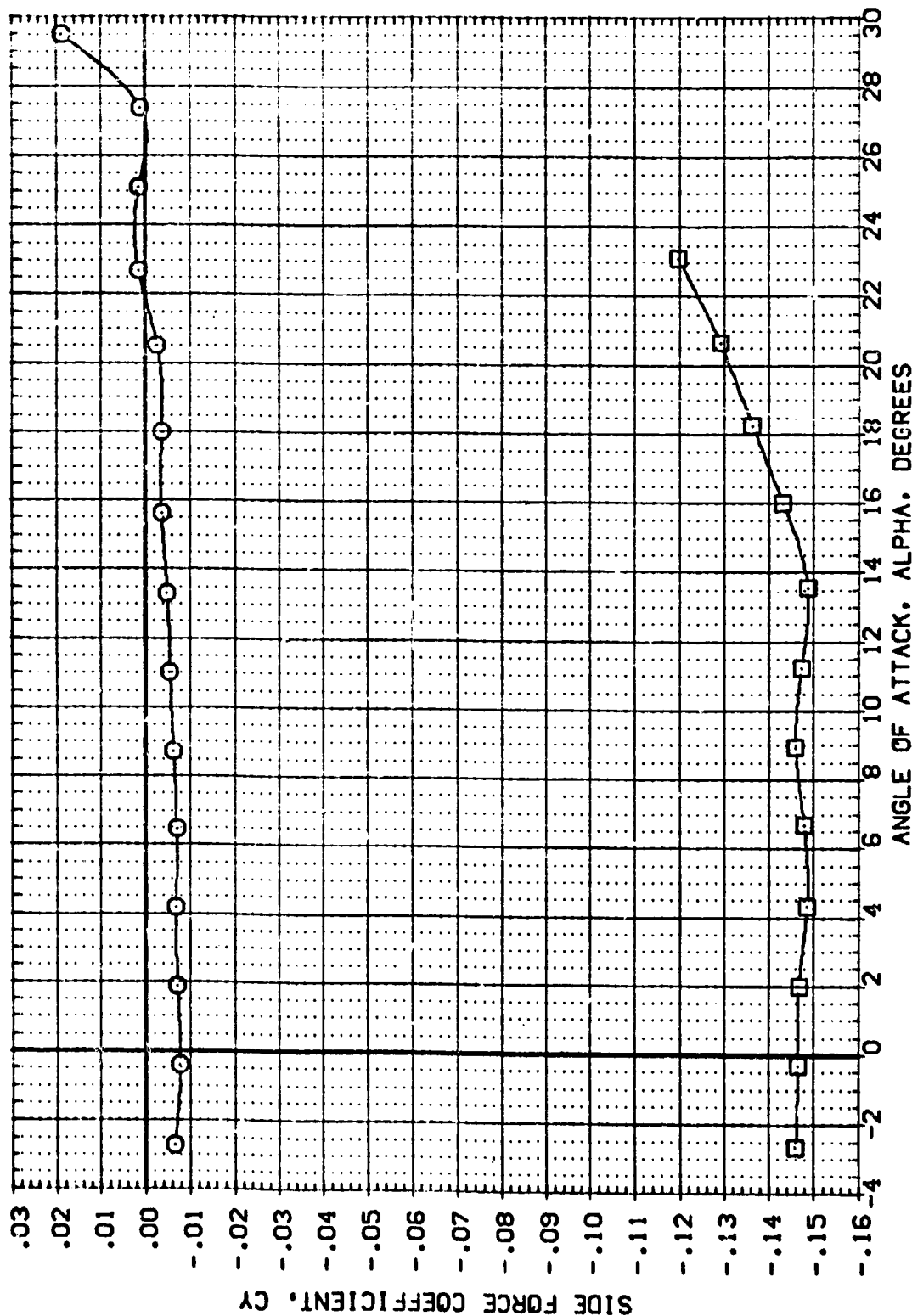
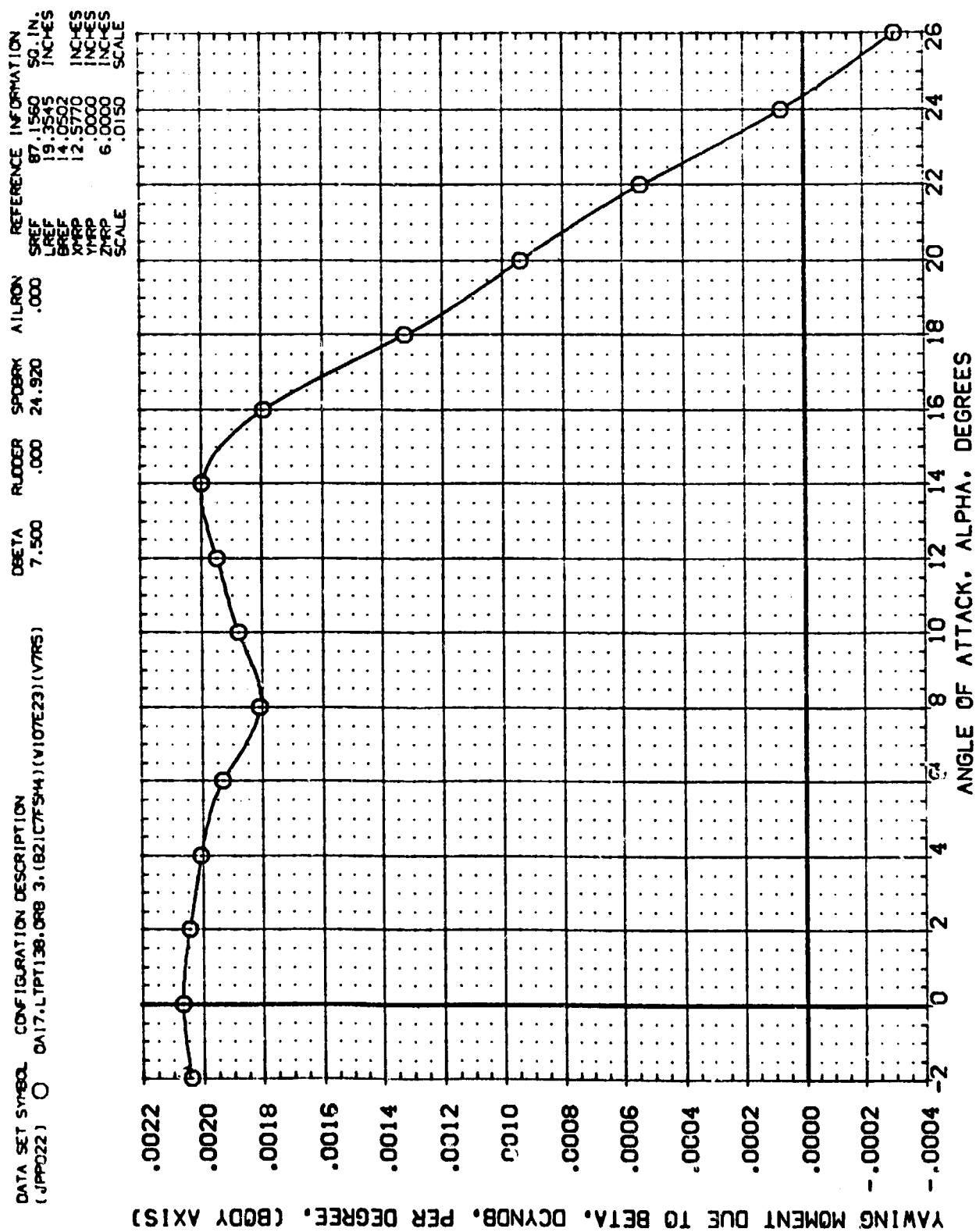


FIGURE 18 1398 ORBITER (MOD NOSE) LATERAL DIRECTIONAL YAW POLAR
 (AJRN/L = 10.00)


$$(A)RN/L = 4.70$$

DATA SET SYMBOL ○ 0A17.LTPT138.088 3.(821C7FSM4)(V107E23)(V7R5)

CONFIGURATION DESCRIPTION

DBETA 7.500

RUDER .000

SPDRBK 24.920

AILRON .000

REFERENCE INFORMATION

SREF 87.1560 50. IN.

REF 19.3545 INCHES

BREF 14.6502 INCHES

XTRP 12.5770 INCHES

YTRP .0000 INCHES

ZTRP 6.0000 INCHES

SCALE .0150 SCALE

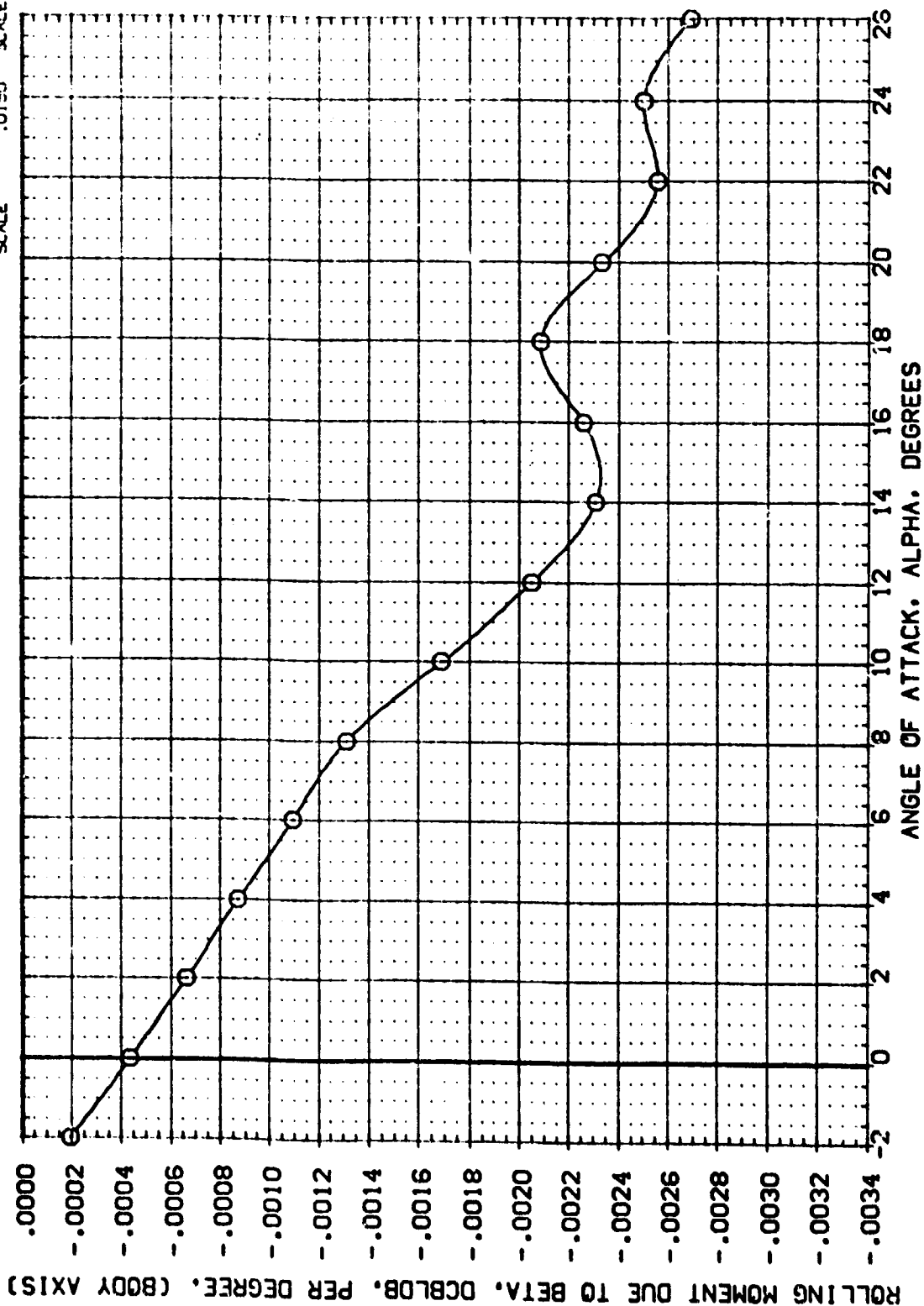
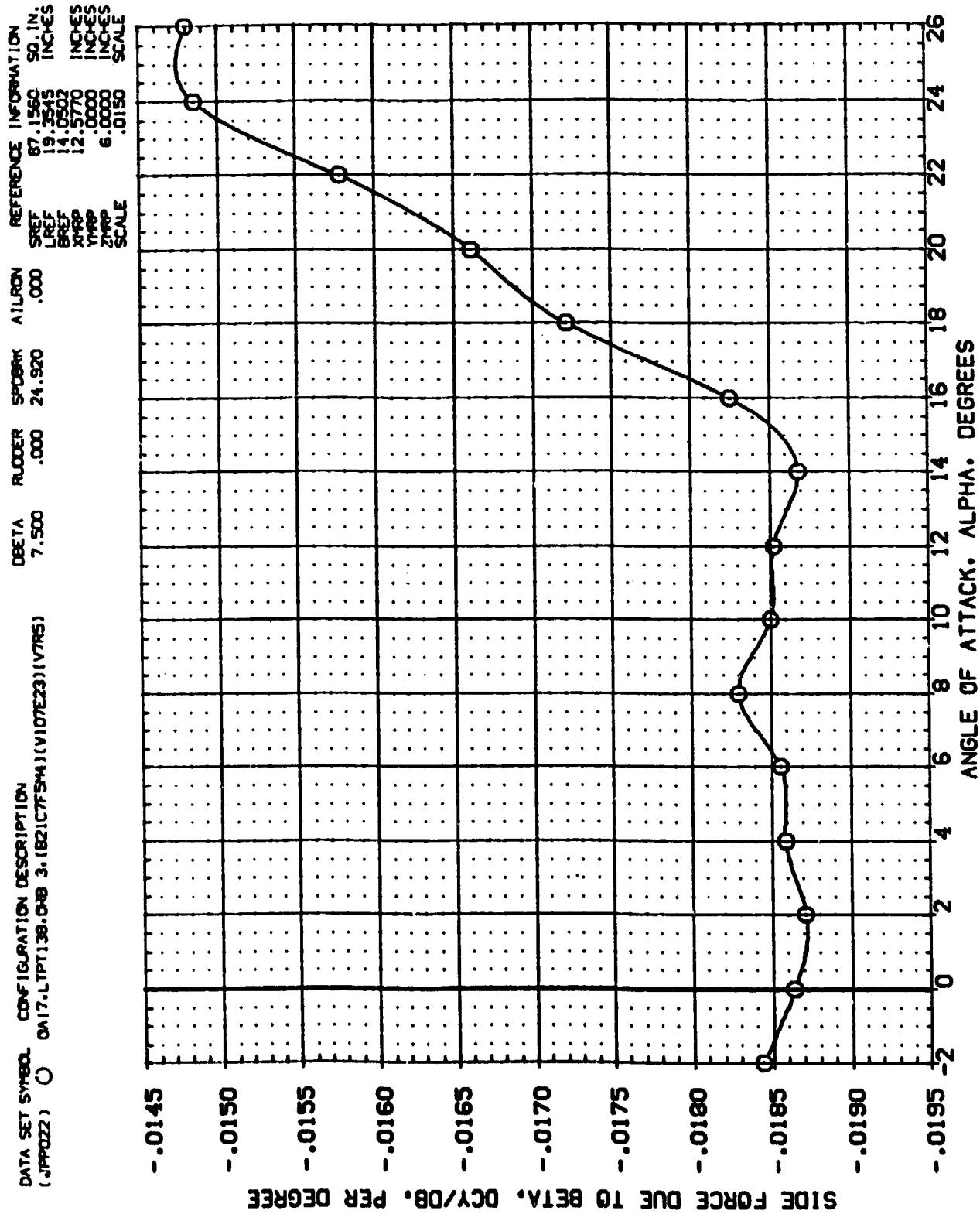


FIGURE 19 139B ORBITER (MOD NOSE) LATERAL DIRECTIONAL DERIVATIVES

(A)RN/L = 4.70


$$\{A\}RN/L = 4.70$$

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(JPP022) ○ 0A17.LTPT138.058 3.(B21C75M4)(V107E231)(V7M5)

DBETA RUDDER SPOBRK AILRON
7.500 .000 24.520 .000

REFERENCE INFORMATION
SREF 87.1560 50. IN.
LREF 19.3545 INCHES
BREF 14.0502 INCHES
XPRP 12.5770 INCHES
YPRP 6.0000 INCHES
ZPRP 6.0000 INCHES
SCALE .0150 SCALE

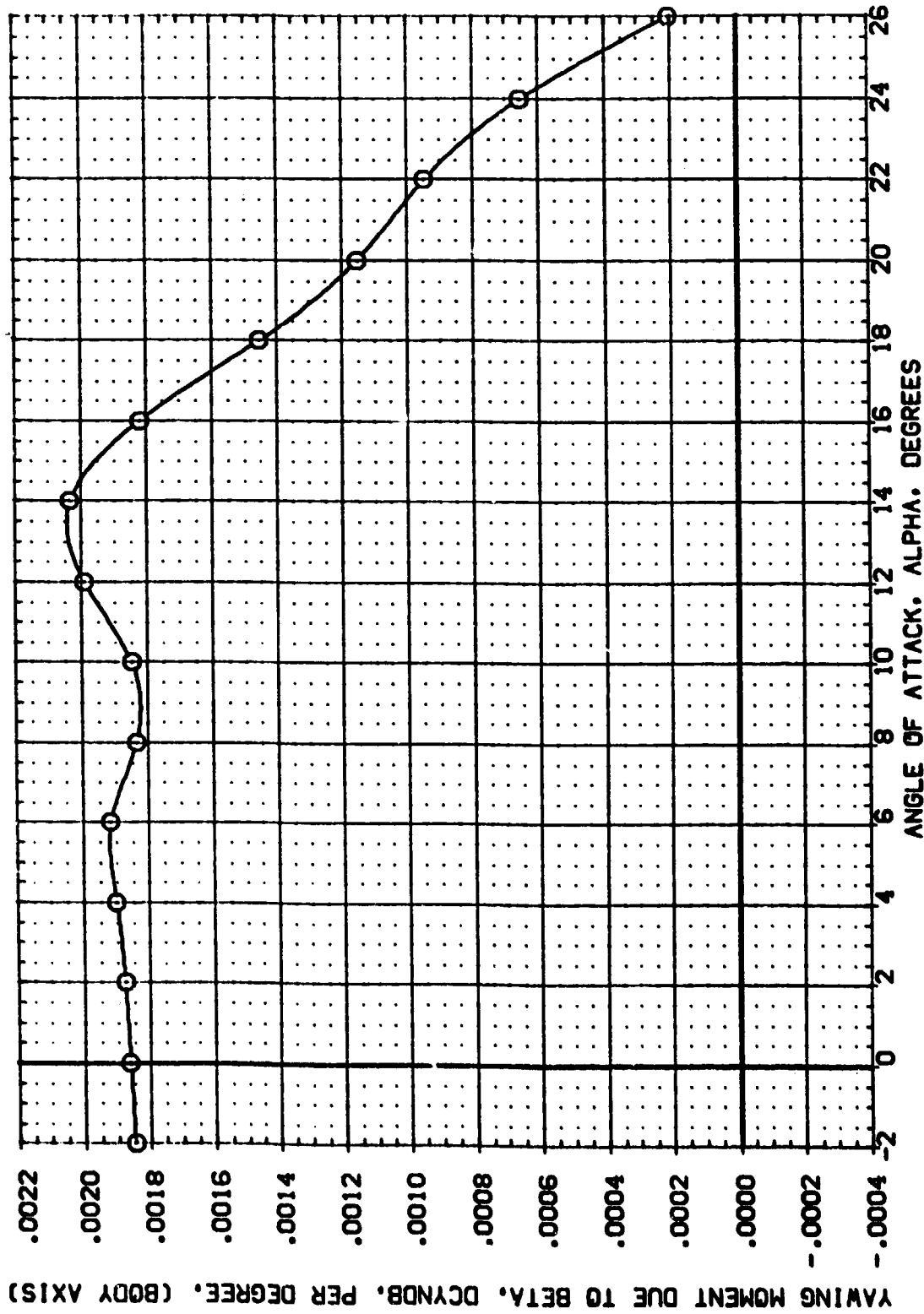
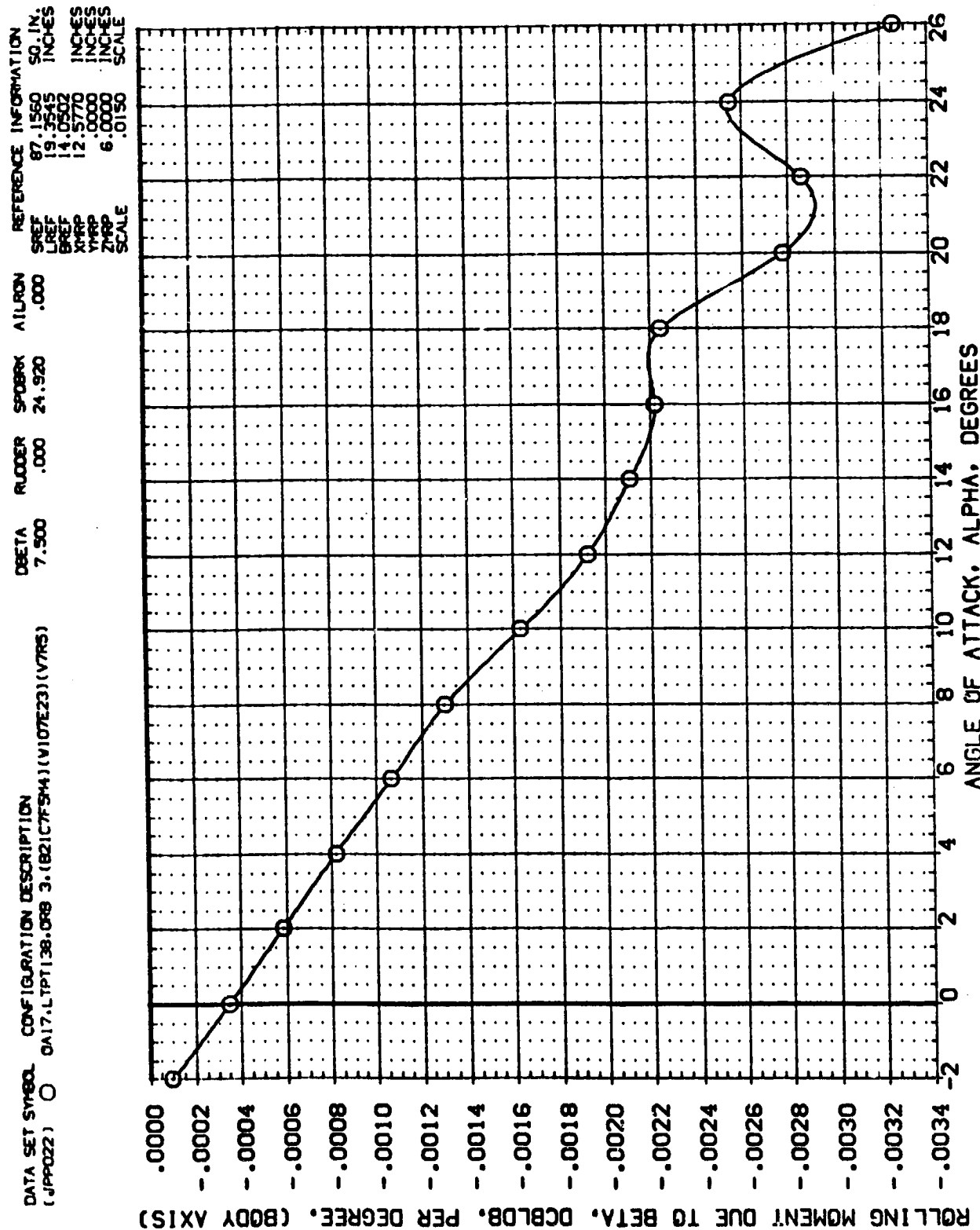


FIGURE 19 1398 ORBITER (MOD NOSE) LATERAL DIRECTIONAL DERIVATIVES

(A)RN/L = 10.00



DATA SET SYMBOL (JPR022) ○ CONFIGURATION DESCRIPTION 0A17.LTP139.000 3.(B21C7F3M4)(V107E23)(V7R5)

REFERENCE INFORMATION	
SREF	87.1560 SO. IN.
LREF	19.3543 INCHES
BREF	14.0502 INCHES
XMRP	12.5770 INCHES
YMRP	6.0000 INCHES
ZMRP	6.0000 INCHES
SCALE	.0150

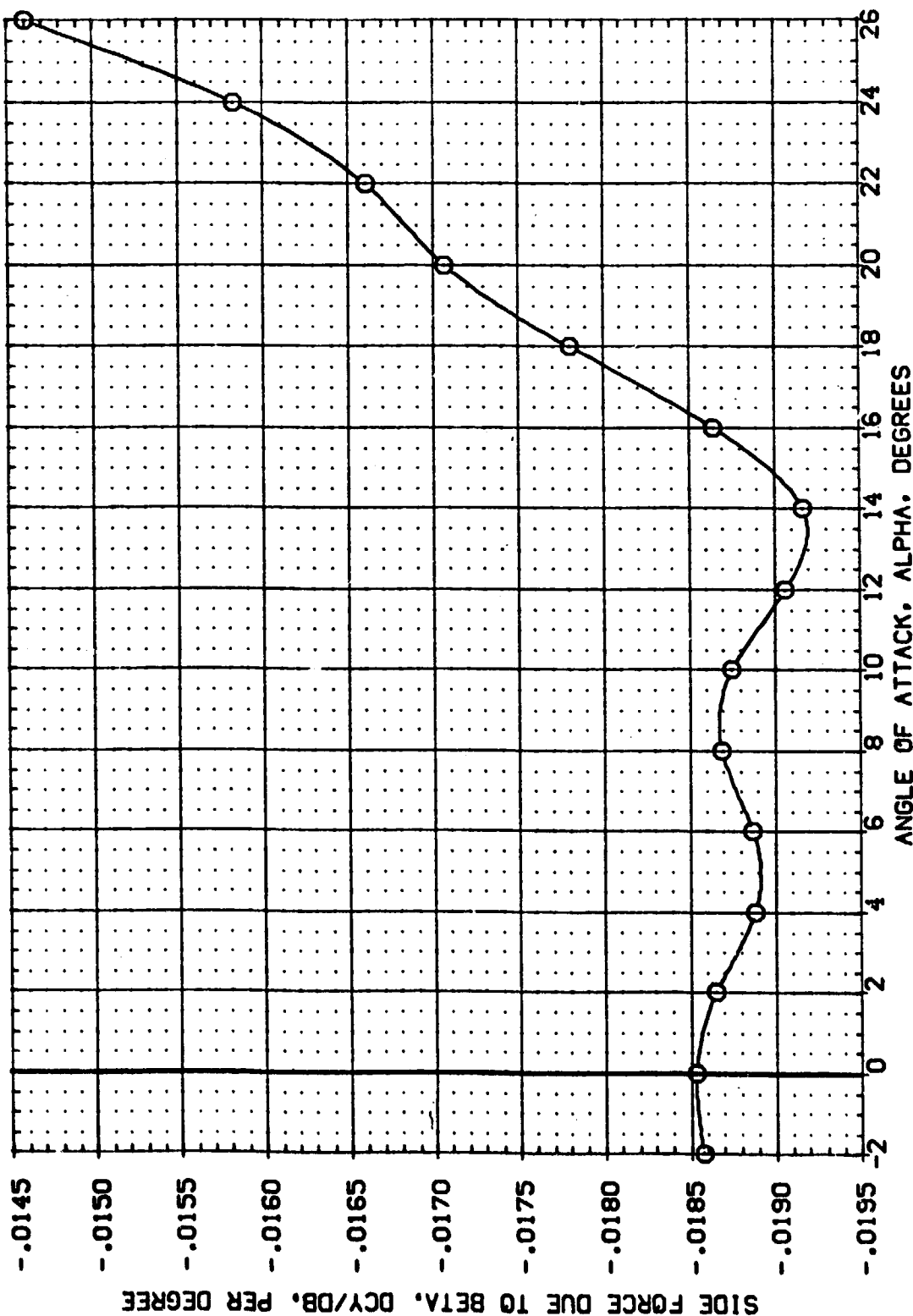


FIGURE 19 139B ORBITER (MOD NOSE) LATERAL DIRECTIONAL DERIVATIVES

(AJRN/L = 10.00



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILERON	ELEVTR	BETA	RUDDER	REFERENCE INFORMATION
(RPP012)	DA17.LTPT138.098 3. (B21C7F5M4)(V107E23)(V7RS)	6.000	-6.000	.000	.000	SREF 87.1560 SQ.IN.
(RPP011)	DA17.LTPT138.098 3. (B21C7F5M4)(V107E23)(V7RS)	.000	.000	.000	.000	UREF 19.3545 INC-ES
(RPP013)	DA17.LTPT138.098 3. (B21C7F5M4)(V107E23)(V7RS)	.000	-5.400	.000	.000	BREF 14.0502 INC-ES
						XTRP 12.5770 INC-ES
						YTRP 6.0000 INC-ES
						SCALE .0150

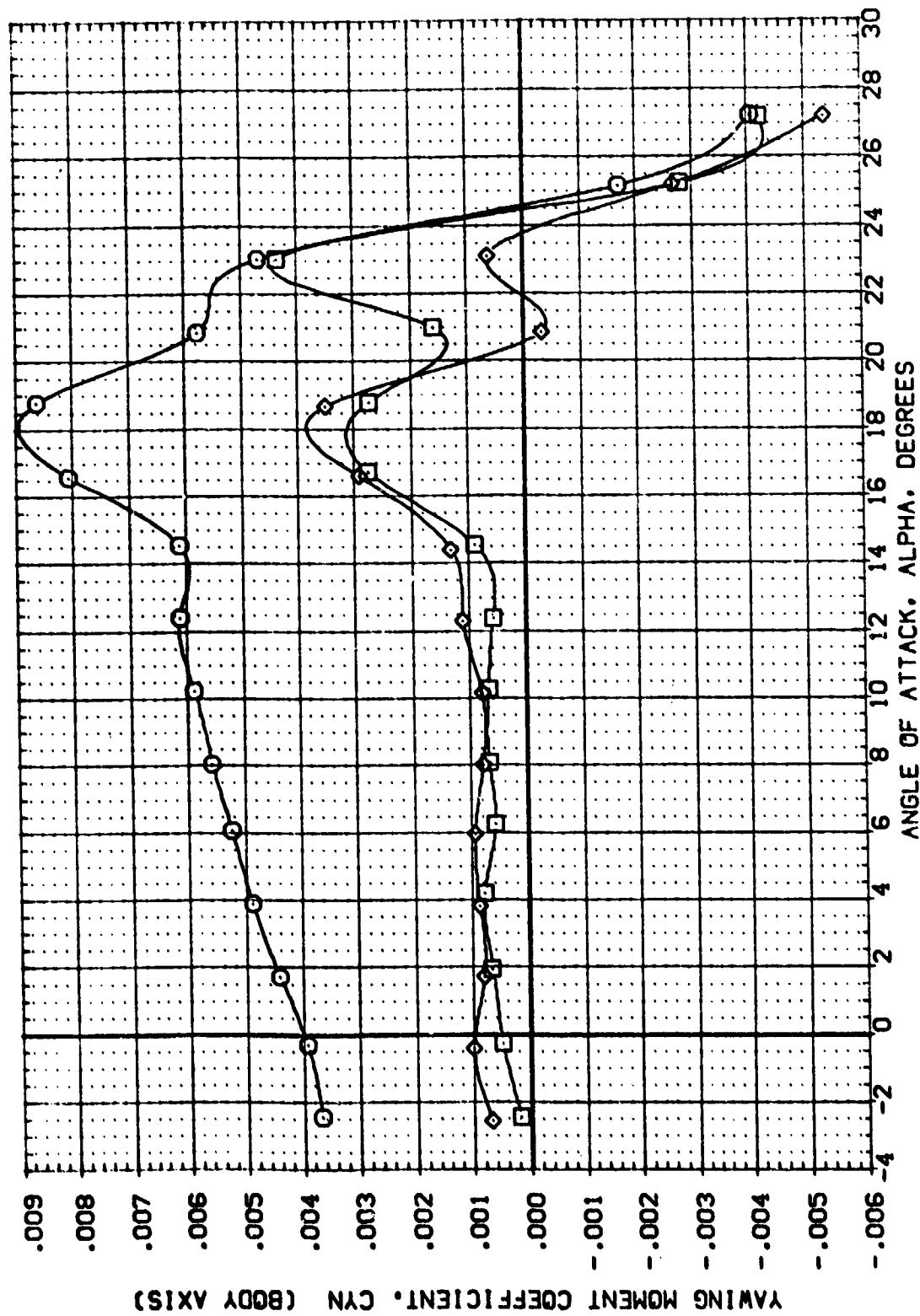


FIGURE 20 139B ORBITER (MOD NOSE) AILERON DEFLECTION EFFECTS

(A)RN/L = 2.50

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		AILERON		ELEVTR		BETA		RUDDER		REFERENCE INFORMATION	
(RPP012)	QAI7.LTPT138.0R8	3.(B2IC7F5M4)	(V107E23)(V7RS)	6.000	-6.000	.000	.000	.000	.000	.000	.000	SREF	87.1560
(RPP011)	QAI7.LTPT138.0R8	3.(B2IC7F5M4)	(V107E23)(V7RS)	.000	.000	.000	.000	.000	.000	.000	.000	LREF	19.3545
(RPP013)	QAI7.LTPT138.0R8	3.(B2IC7F5M4)	(V107E23)(V7RS)	.000	-5.400	.000	.000	.000	.000	.000	.000	BREF	14.0502
												XPRP	12.5770
												YPRP	.0000
												ZPRP	6.0000
												SCALE	.0150

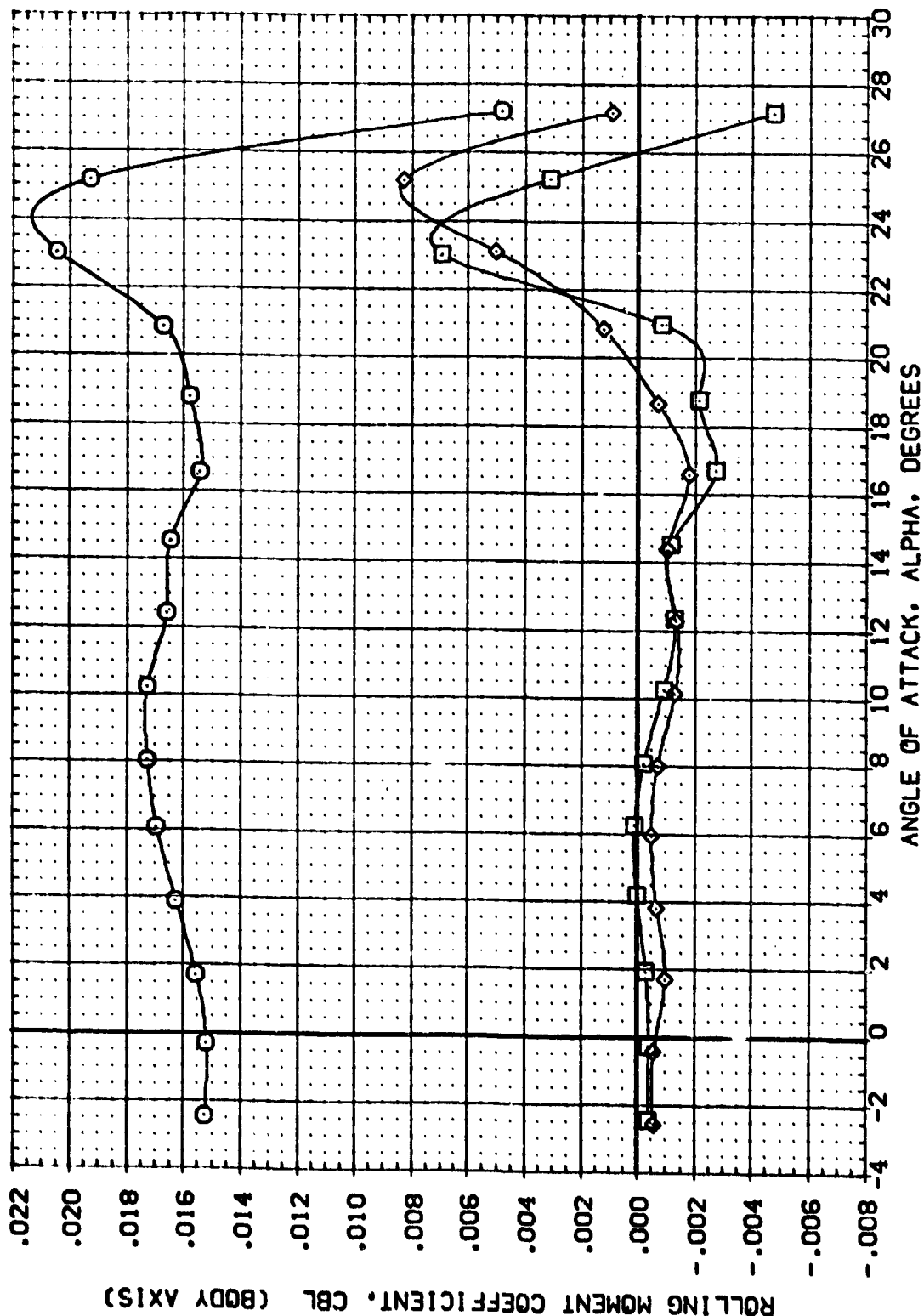


FIGURE 20 139B ORBITER (MOD NOSE) AILERON DEFLECTION EFFECTS

(AJRN/L = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILERON	ELEVTR	BETA	RUDDER	REFERENCE INFORMATION	
(RPP012)	DA17-LTPT138.058 3.(B21C7F5M4)(V107E23)(V7R5)	6.000	-6.000	.000	.000	SREF	87.1560
(RPP011)	DA17-LTPT138.058 3.(B21C7F5M4)(V107E23)(V7R5)	.000	.000	.000	.000	LREF	19.3545
(RPP013)	DA17-LTPT138.058 3.(B21C7F5M4)(V107E23)(V7R5)	.000	-5.400	.000	.000	BREF	14.0502
						YMRP	12.5770
						ZMRP	6.0000
						SCALE	.0150
							INCHES
							INCHES
							SCALE

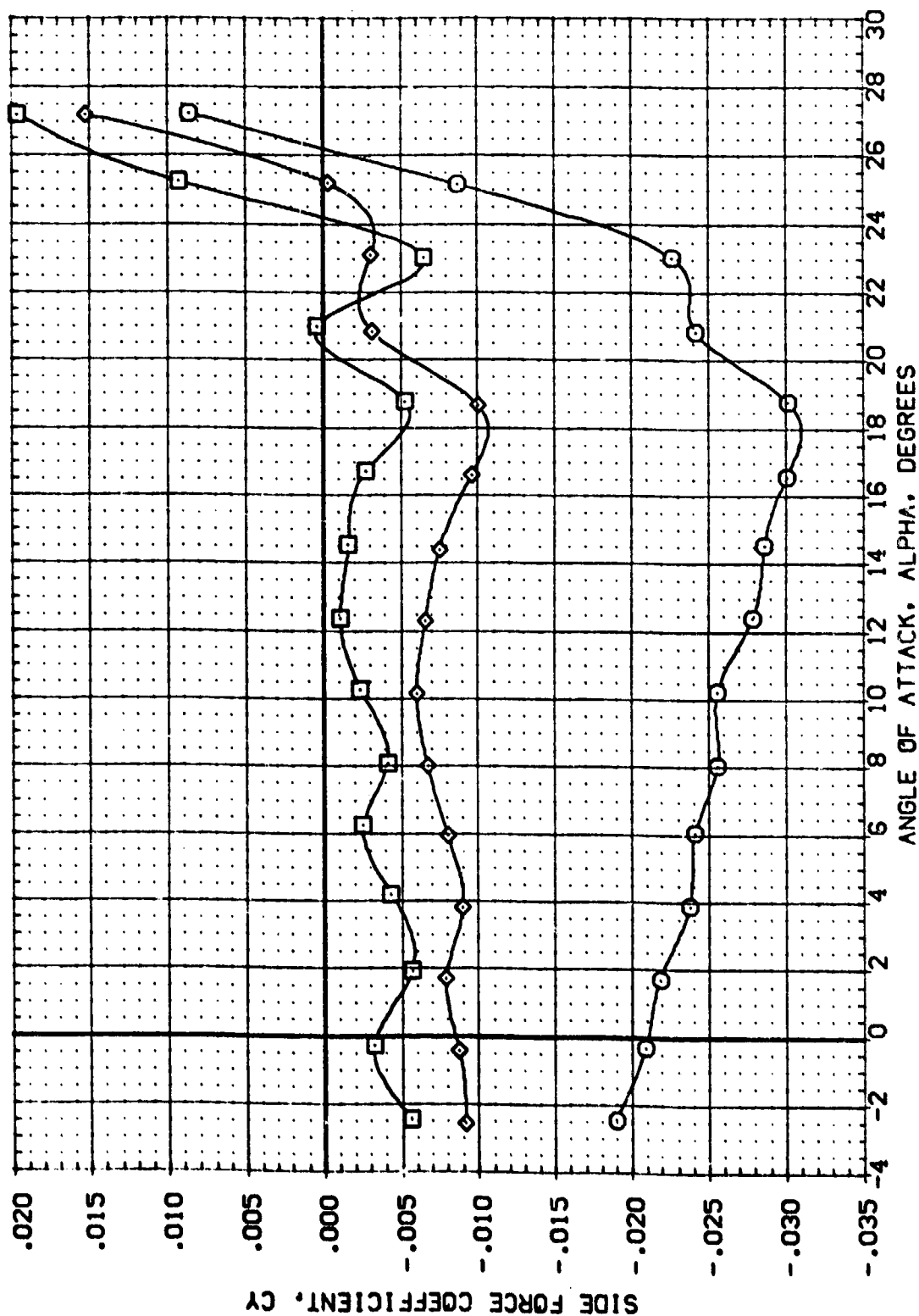


FIGURE 20 1398 ORBITER (MOD NOSE) AILERON DEFLECTION EFFECTS

(A)RN/L = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILERON	ELEVTR	BETA	RUDDER	REFERENCE INFORMATION
(RPP012)	CA17-LTPT138-058 3.(821C7F5M4)(V107E23)(V7R5)	6.000	-6.000	.000	.000	SREF 87.1560 SQ.IN.
(RPP011)	CA17-LTPT138-058 3.(821C7F5M4)(V107E23)(V7R5)	.000	.000	.000	.000	LREF 19.3545 INCHES
(RPP013)	CA17-LTPT138-058 3.(821C7F5M4)(V107E23)(V7R5)	.000	-5.400	.000	.000	BREF 14.0502 INCHES
						XMRP 12.5770 INCHES
						YMRP .0000 INCHES
						ZMRP .0000 INCHES
						SCALE .0150

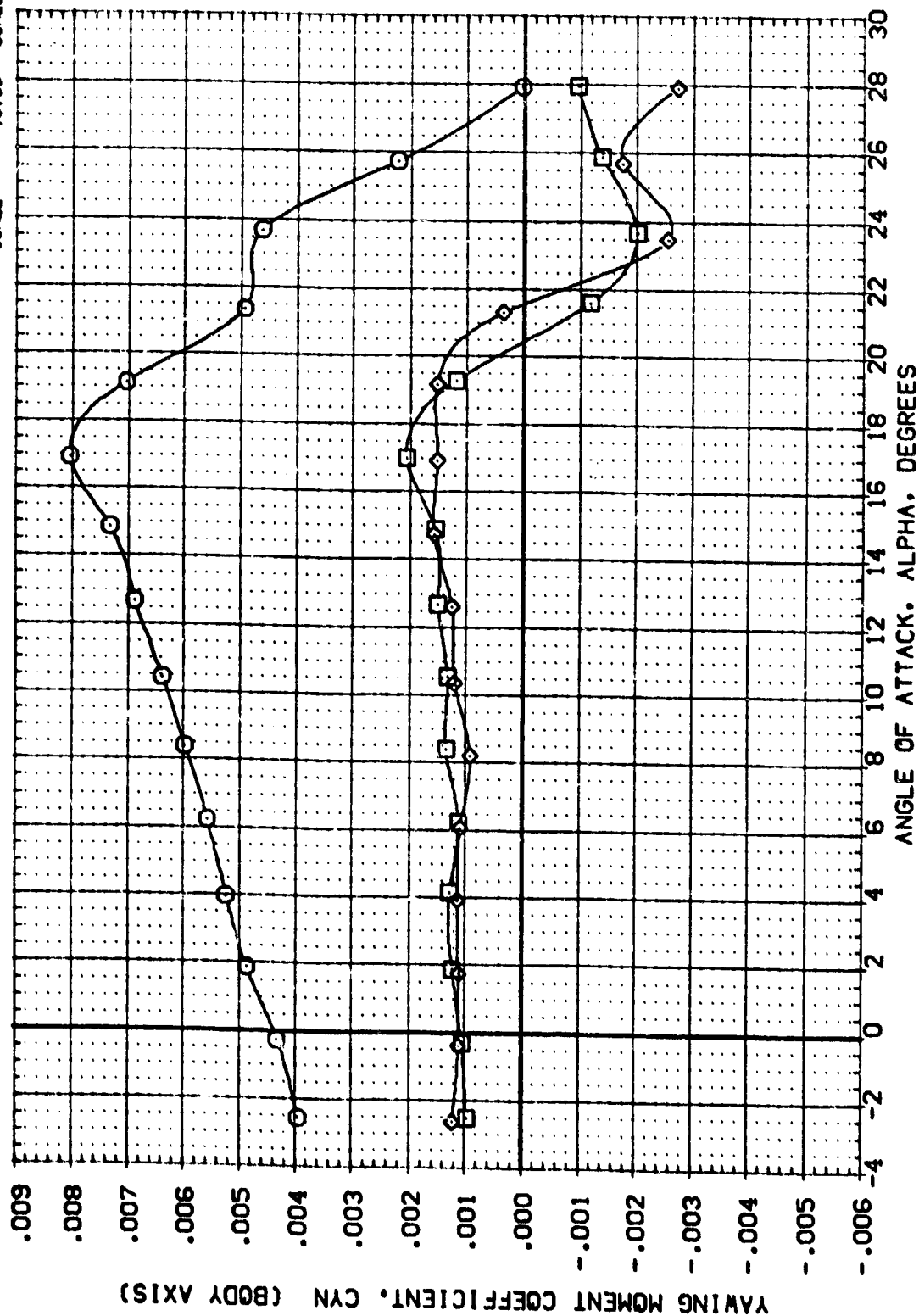


FIGURE 20 139B ORBITER (MOD NOSE) AILERON DEFLECTION EFFECTS

(A)RN/L = 4.70



DATA SET SYMBOL		CONFIGURATION DESCRIPTION		AILERON		ELEVTR		BETA		RUDDER		REFERENCE INFORMATION	
(RPO12)	0A17.LTPT138.0R8	3.(B21C7F5M4)	(V107E23)	(V7R5)	6.000	-6.000	.000	.000	.000	.000	.000	SREF	87.1560
(RPO11)	0A17.LTPT138.0R8	3.(B21C7F5M4)	(V107E23)	(V7R5)	.000	.000	.000	.000	.000	.000	.000	LREF	19.3545
(RPO13)	0A17.LTPT138.0R8	3.(B21C7F5M4)	(V107E23)	(V7R5)	.000	-5.400	.000	.000	.000	.000	.000	BREF	14.0502
												XPRP	12.5770
												YPRP	.0000
												ZPRP	.0000
												SCALE	.0150
													INCHES
													INCHES
													SCALE

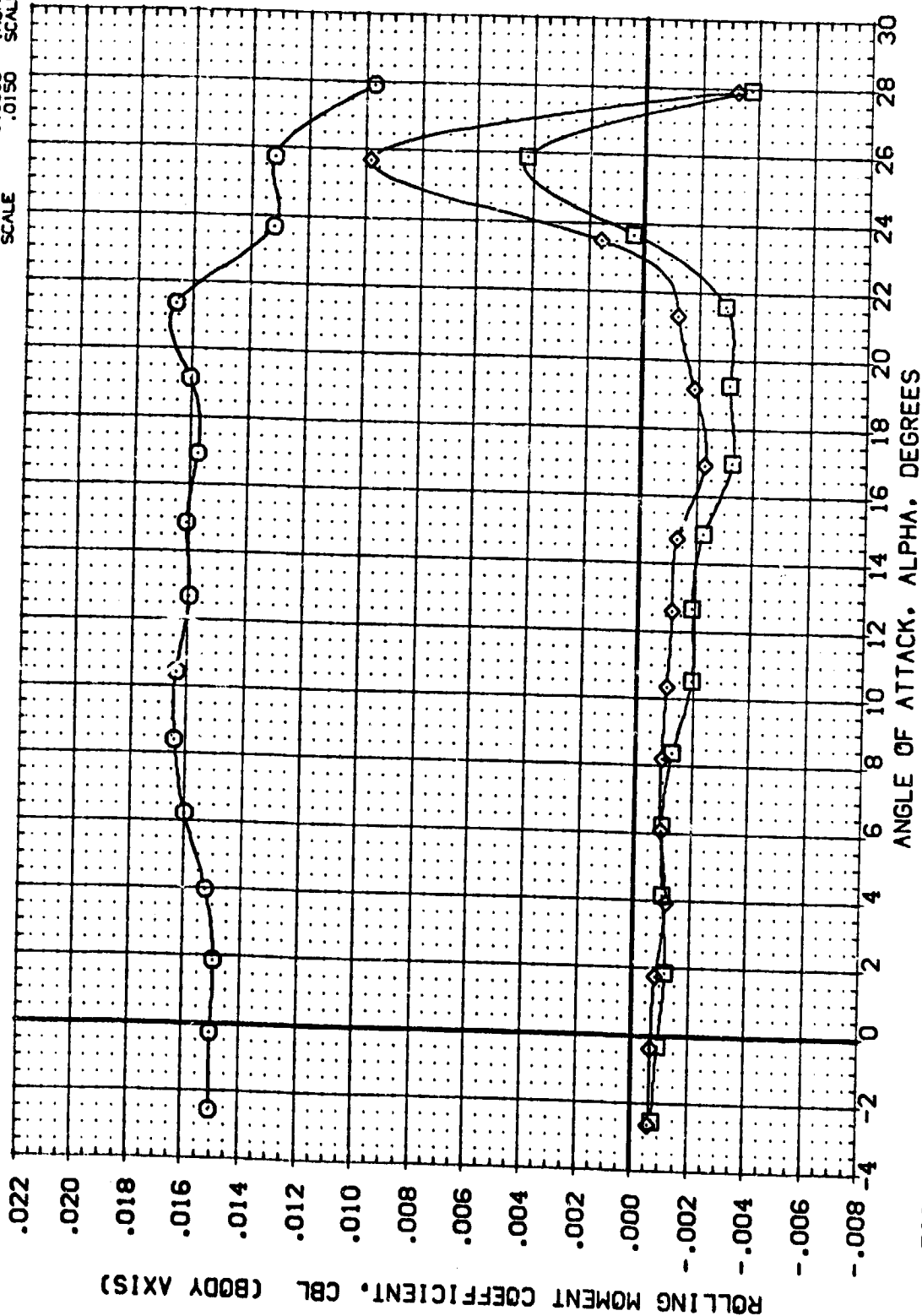


FIGURE 20 139B ORBITER (MOD NOSE) AILERON DEFLECTION EFFECTS

CAR/N/L = 4.70

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		AILERON		ELEVTR		BETA		RUDDER		REFERENCE INFORMATION			
(RPP012)	□	CA17.LTPT138.058	3. (B21C7F5M4)(V107E23)(V7R5)	6.000	-6.000	.000	.000	.000	.000	SREF	87.1560	SQ. IN.			
(RPP011)	◇	CA17.LTPT138.058	3. (B21C7F5M4)(V107E23)(V7R5)	.000	.000	.000	.000	.000	.000	LREF	19.3545	INCHES			
(RPP013)	◇	CA17.LTPT138.058	3. (B21C7F5M4)(V107E23)(V7R5)	.000	-5.400	.000	.000	.000	.000	BREF	14.0502	INCHES			
										XPRP	12.5770	INCHES			
										YPRP	7.0000	INCHES			
										ZPRP	1.0000	INCHES			
										SCALE	1.0000	SCALE			

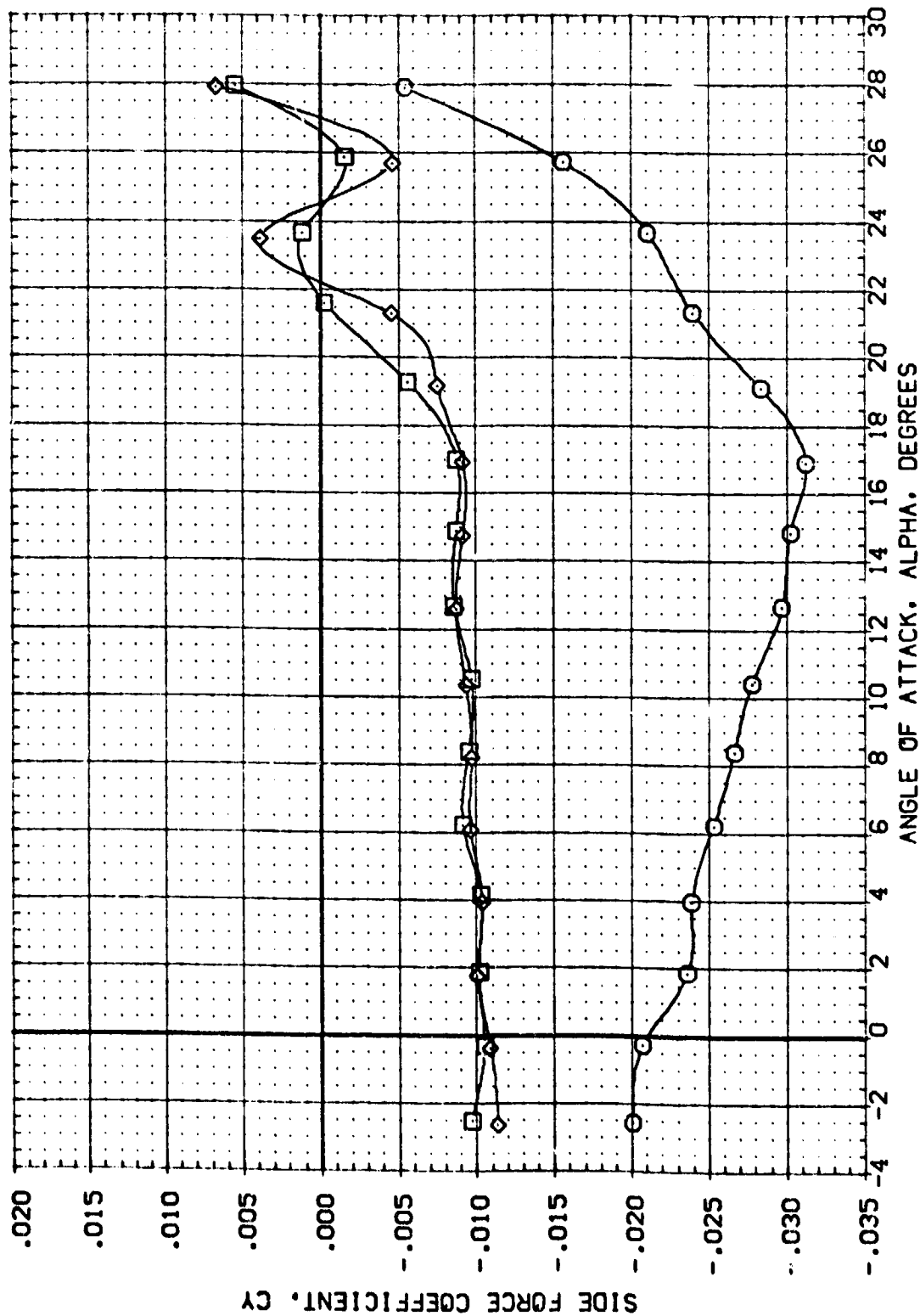


FIGURE 20 139B ORBITER (MOW NOSE) AILERON DEFLECTION EFFECTS

(AJRN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILERON	ELEVTR	BETA	RUDDER	REFERENCE INFORMATION
(000C12)	CA17-LTPT138-058 3. (B21C7F5M4) (V107E23) (V7R5)	6.000	-6.000	.000	.000	SREF 87.1560 SQ. IN.
(000C11)	CA17-LTPT138-058 3. (B21C7F5M4) (V107E23) (V7R5)	.000	.000	.000	.000	LREF 19.3545 INCHES
(000C13)	CA17-LTPT138-058 3. (B21C7F5M4) (V107E23) (V7R5)	.000	-5.400	.000	.000	BREF 14.0502 INCHES
						YMRP 12.5770 INCHES
						ZMRP 6.0000 INCHES
						SCALE .0150

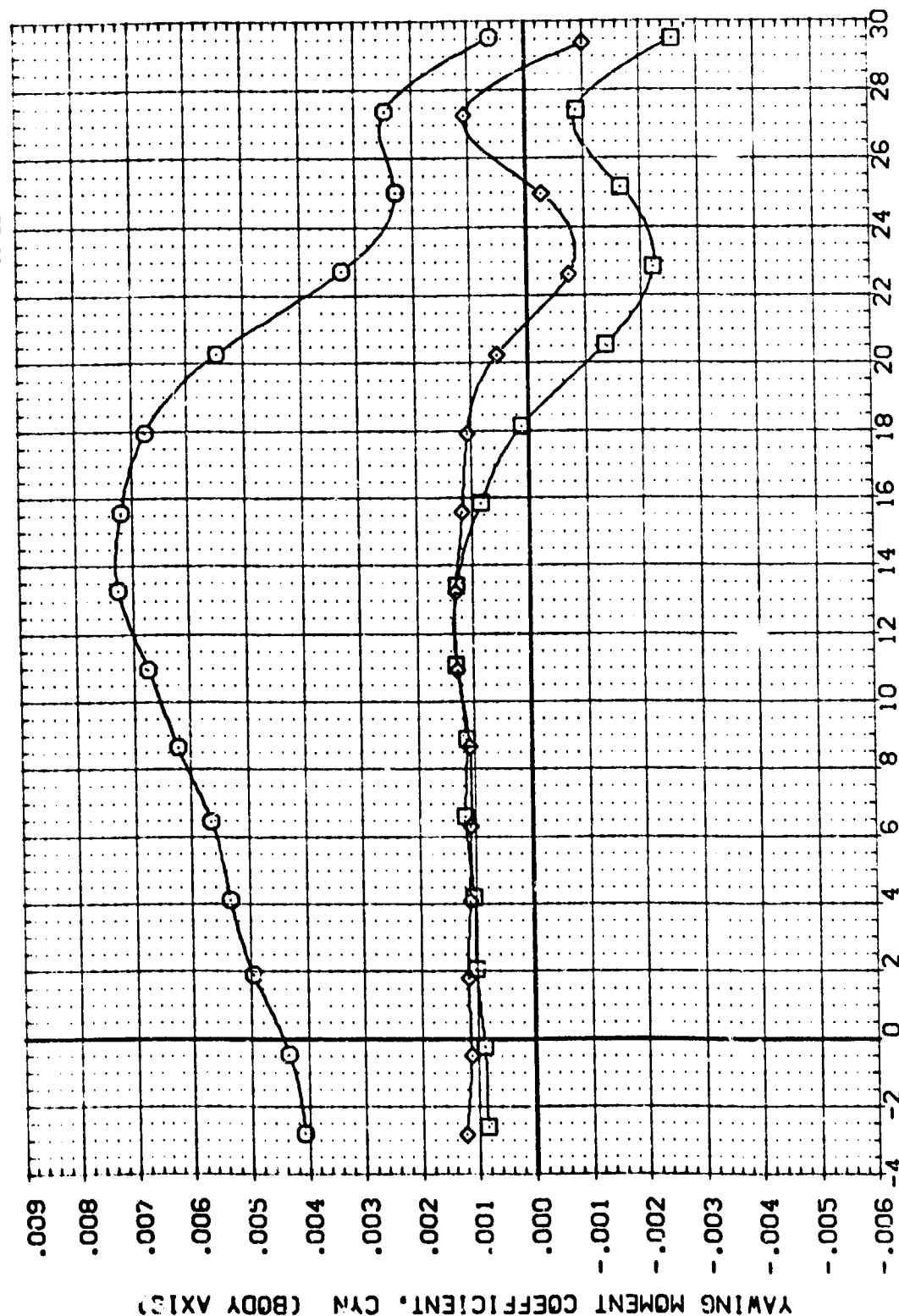


FIGURE 20 139B ORBITER (MOD NOSE) AILERON DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RPP012) DA17.LTPT138.088 3.(B21C7F5M4)(V107E23)(V7R5)
 (RPP011) DA17.LTPT138.088 3.(B21C7F5M4)(V107E23)(V7R5)
 (RPP013) DA17.LTPT138.088 3.(B21C7F5M4)(V107E23)(V7R5)

AILERON ELEVTR BETA RUDDER
 6.000 -6.000 .000 .000
 .000 .000 .000 .000
 .000 -5.400 .000 .000

REFERENCE INFORMATION
 SREF 87.1560 SQ.IN.
 LREF 19.3545 IN.-ES
 BREF 14.0502 IN.-ES
 XMRP 12.5770 IN.-ES
 YMRP 6.0000 IN.-ES
 ZMRP 6.0000 IN.-ES
 SCALE .0150 SCALE

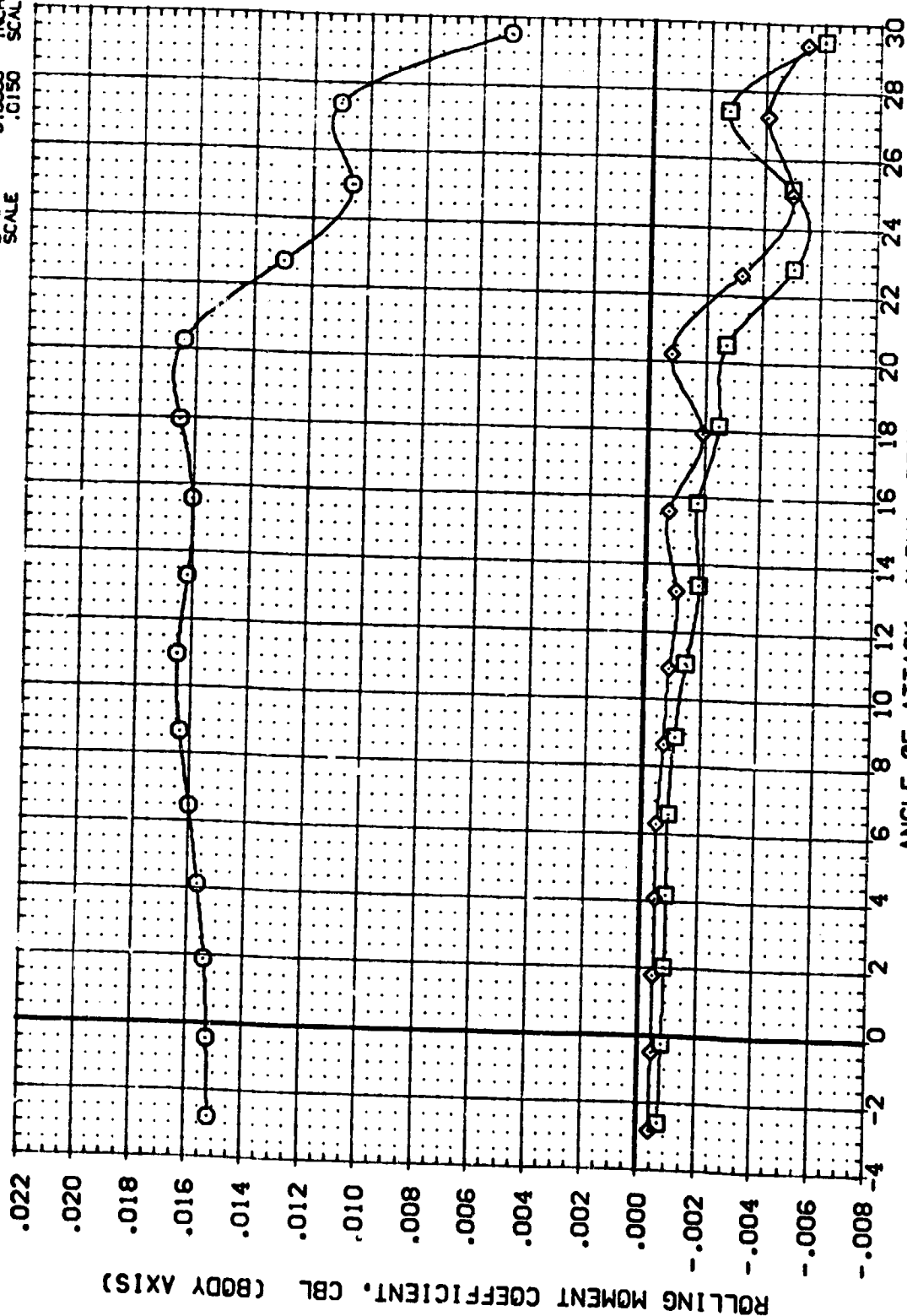


FIGURE 20 1398 ORBITER (MOD NOSE) AILERON DEFLECTION EFFECTS
 (A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILERON	ELEVTR	BETA	RUDDER	REFERENCE INFORMATION
(RPP012)	0A17.LTPT138.088 3.(82)C7F5M4.(V107E23)(V7RS)	6.000	-6.000	.000	.000	SREF 87.1560 50.1N
(RPP011)	0A17.LTPT138.088 3.(82)C7F5M4.(V107E23)(V7RS)	.000	.000	.000	.000	LREF 19.3545 INCHES
(RPP013)	0A17.LTPT138.088 3.(82)C7F5M4.(V107E23)(V7RS)	.000	-5.400	.000	.000	BREF 14.0502 INCHES
						XREF 12.5770 INCHES
						YREF 6.0000 INCHES
						ZREF 6.0000 INCHES
						SCALE .0150 SCALE

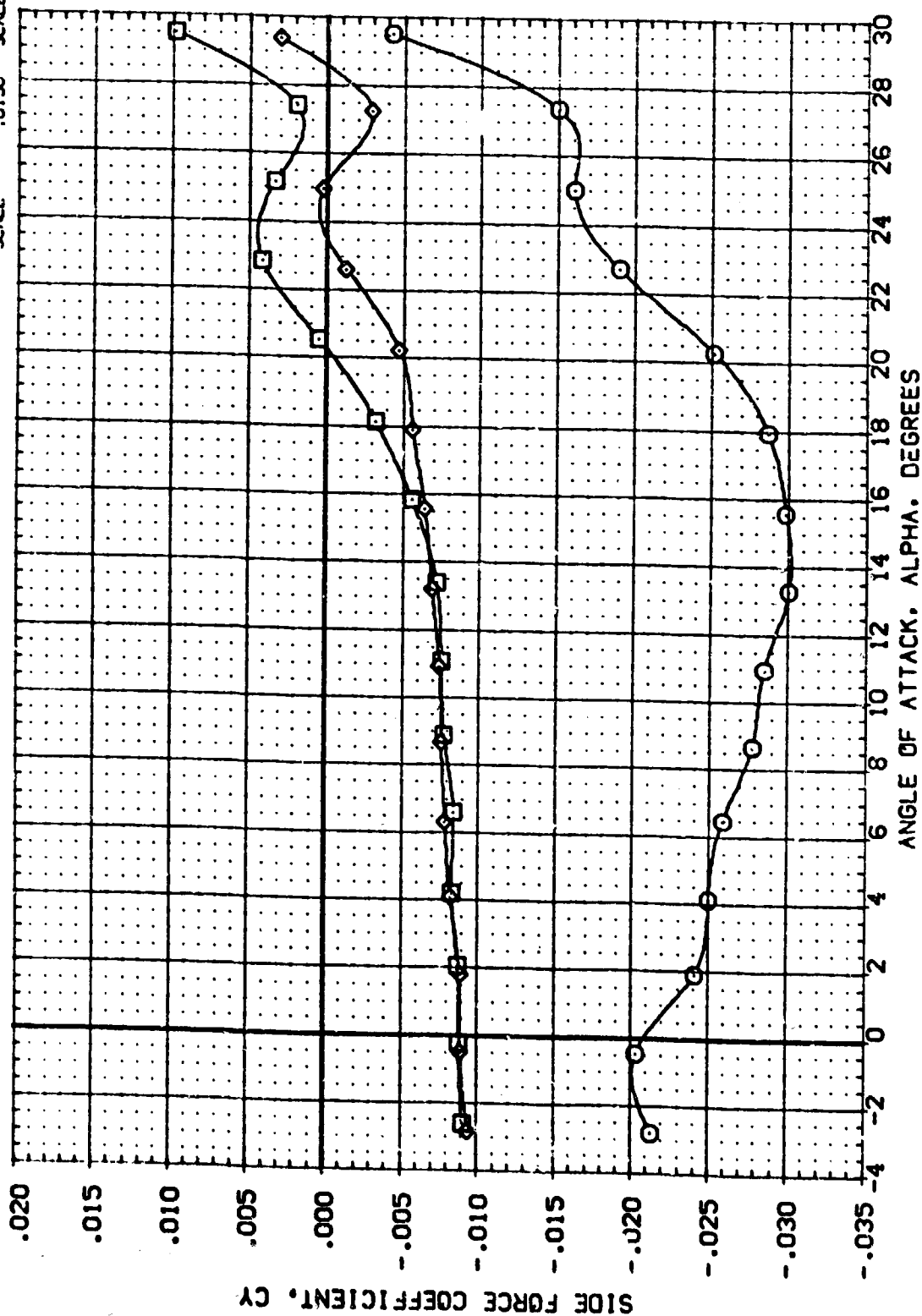


FIGURE 20 139B ORBITER (MOD NOSE) AILERON DEFLECTION EFFECTS

(AJRN/L = 10.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RPP012) OA17.LTPT138.088 3.(82)CTFSM4)(V107E23)(V7MS)
 (RPP011) OA17.LTPT138.088 3.(82)CTFSM4)(V107E23)(V7MS)
 (RPP013) OA17.LTPT138.088 3.(82)CTFSM4)(V107E23)(V7MS)

AILERON ELEVTR BETA RUDDER REFERENCE INFORMATION
 6.000 -6.000 .000 .000 SREF 87.1560 SQ. IN.
 .000 .000 .000 .000 LREF 19.3545 INCHES
 .000 -5.400 .000 .000 BREF 12.0502 INCHES
 .000 .000 .000 .000 XTRP 12.5770 INCHES
 .000 .000 .000 .000 YTRP 6.0000 INCHES
 .000 .000 .000 .000 ZTRP 6.0000 INCHES
 .000 .000 .000 .000 SCALE .0150 SCALE

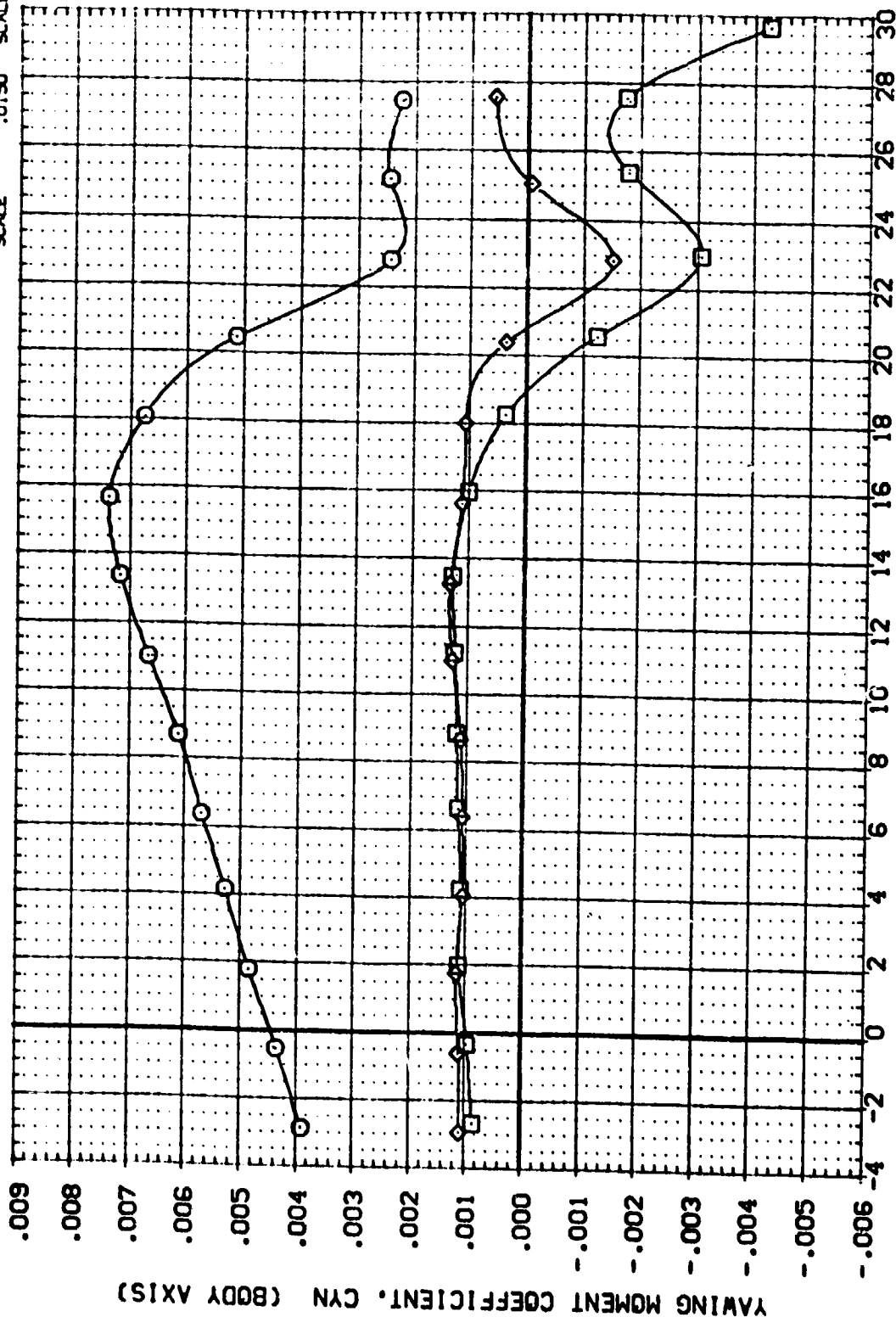


FIGURE 20 139B ORBITER (MOD NOSE) AILERON DEFLECTION EFFECTS

(A)RN/L = 12.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILERON	ELEVTR	BETA	RUDDER	REFERENCE INFORMATION
(RPO12)	DA17.LTPT138.058 3.(B21C7F5M)(W107E23)(V7M5)	6.000	-6.000	.000	.000	SREF 87.1560 SO IN
(RPO11)	DA17.LTPT138.058 3.(B21C7F5M)(W107E23)(V7M5)	.000	.000	.000	.000	REF 19.3545 INCHES
(RPO13)	DA17.LTPT138.058 3.(B21C7F5M)(W107E23)(V7M5)	.000	-5.400	.000	.000	REF 14.0502 INCHES
						XREF 12.5770 INCHES
						YREF 6.0000 INCHES
						ZREF 6.0150 INCHES
						SCALE

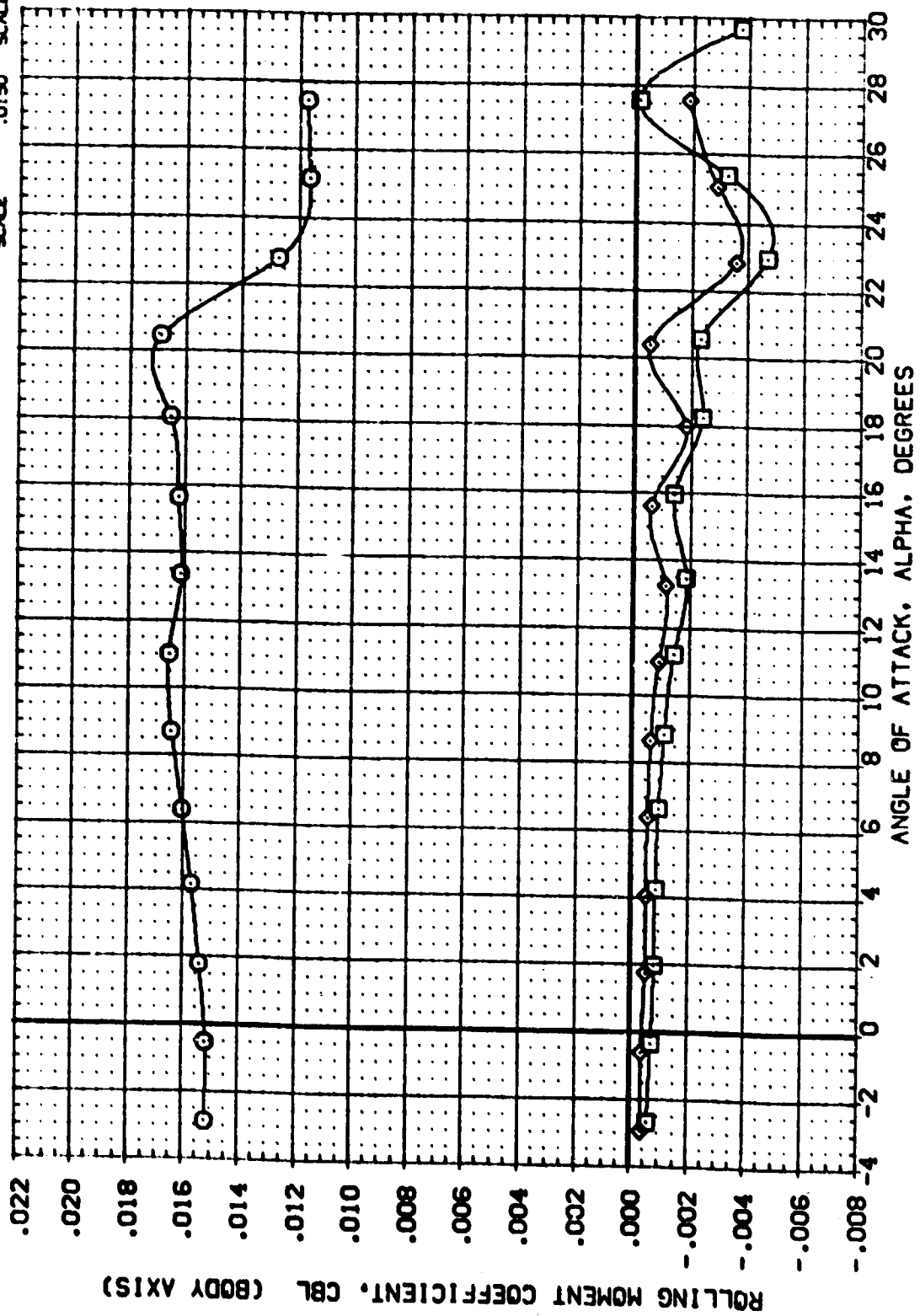


FIGURE 20 1398 ORBITER (MOD NOSE) AILERON DEFLECTION EFFECTS

(A)RN/L = 12.50

DATA SET SYMB.	CONFIGURATION DESCRIPTION	AILERON	ELEVTR	BETA	RUDDER	REFERENCE INFORMATION
(RPP012)	0A17.L1PT138.098 3.(821C7F3M)(V107E23)(V7R3)	6.000	-6.000	.000	.000	SND 87.1560 50.1N.
(RPP011)	0A17.L1PT138.098 3.(821C7F3M)(V107E23)(V7R3)	.000	.000	.000	.000	LREF 19.3545 INO-ES
(RPP013)	0A17.L1PT138.098 3.(821C7F3M)(V107E23)(V7R3)	.000	-5.400	.000	.000	BREF 14.0502 INO-ES
						XREF 12.5770 INO-ES
						YREF .0000 INO-ES
						ZREF 6.0000 INO-ES
						SCALE .0150

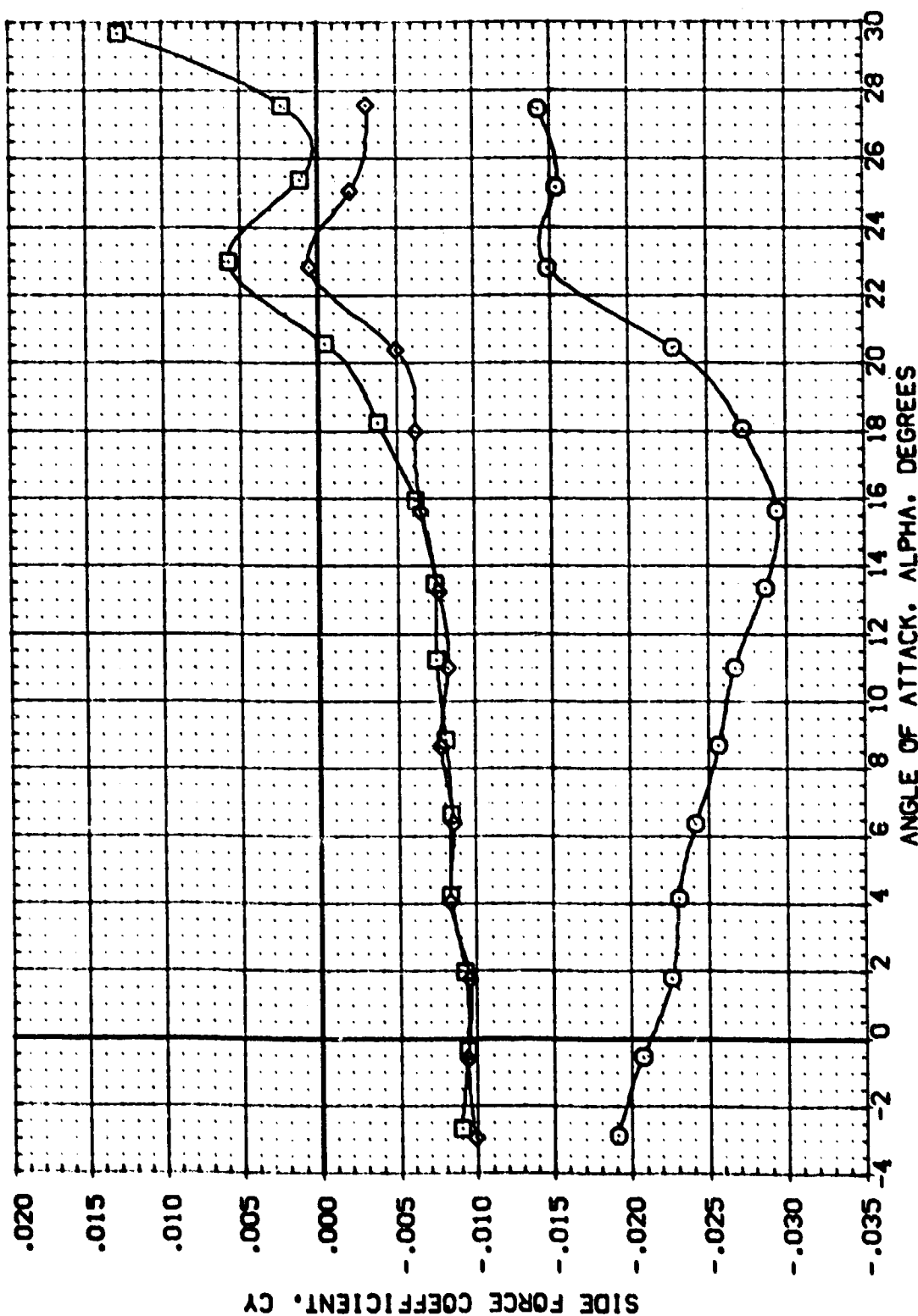


FIGURE 20 1398 ORBITER (MOO NOSE) AILERON DEFLECTION EFFECTS

(A)RN/L = :2.50



DATA SET SYMBOL: (JRP012) ○
 CONFIGURATION DESCRIPTION: OA17.LTPT138.098 3.(821C7F5H)(V107E23)(V7R5)
 REFERENCE INFORMATION:
 SHEET 87.1560 50.1 IN.
 LINE 19.3545 IN-ES
 SPOT 14.0502
 XREF 12.5770 IN-ES
 YREF .0000 IN-ES
 ZREF 6.0000 IN-ES
 SCALE .0150

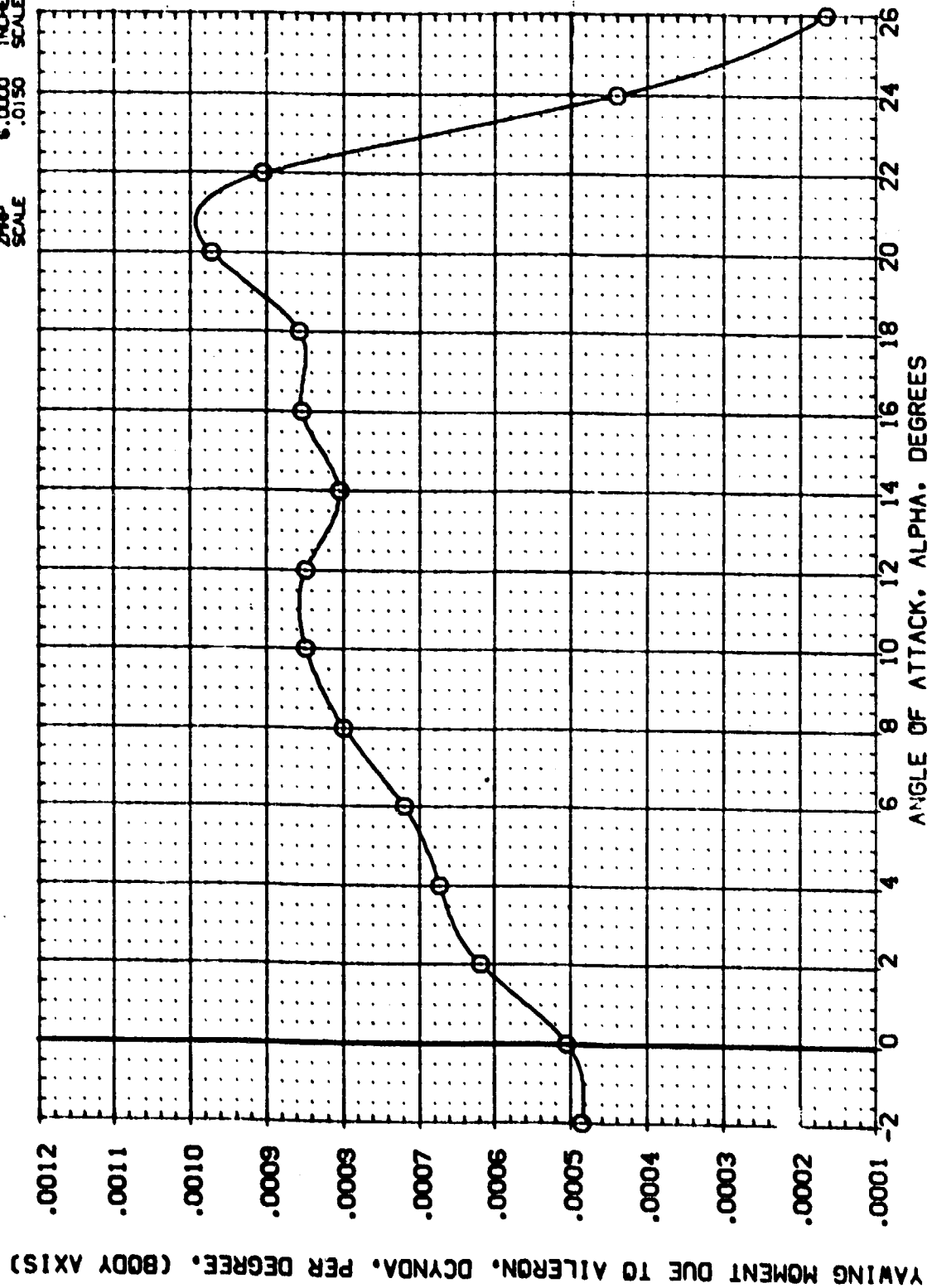


FIGURE 21 1398 ORBITER (MOD NOSE) AILERON EFFECTIVENESS DERIVATIVES

(A) RN/L = 2.50

DATA SET SYMBOL: 017-1398-000 3. (021C75M)(V107E23)(V7M5)

CONFIGURATION DESCRIPTION: 017-1398-000 3. (021C75M)(V107E23)(V7M5)

REFERENCE INFORMATION:

REF	SO, IN
017-1398-000 3. (021C75M)(V107E23)(V7M5)	19.7545 INCHES
017-1398-000 3. (021C75M)(V107E23)(V7M5)	14.0502 INCHES
017-1398-000 3. (021C75M)(V107E23)(V7M5)	12.5770 INCHES
017-1398-000 3. (021C75M)(V107E23)(V7M5)	6.0000 INCHES
017-1398-000 3. (021C75M)(V107E23)(V7M5)	6.0150 INCHES

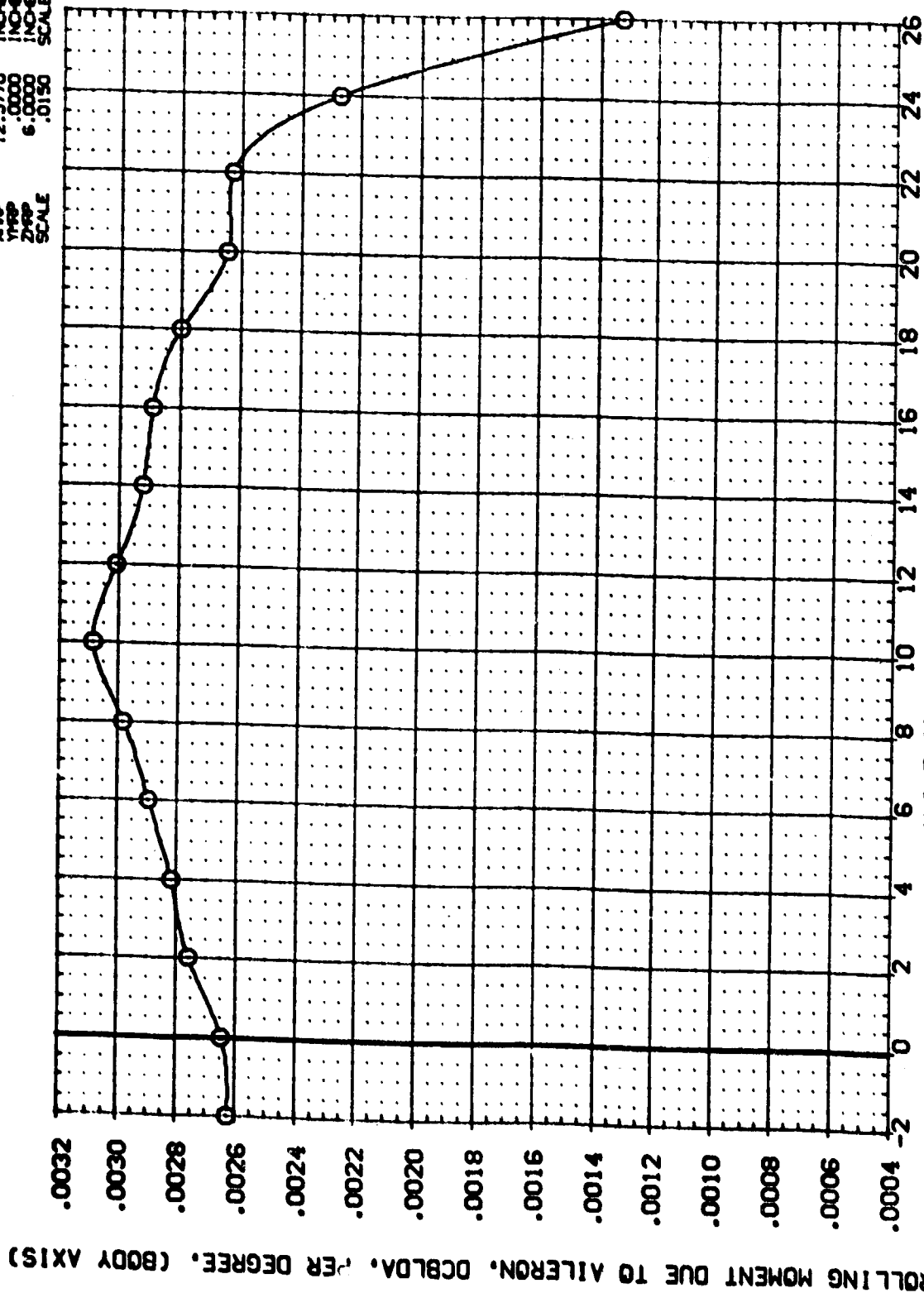


FIGURE 21 1398 ORBITER (MOD NOSE) AILERON EFFECTIVENESS DERIVATIVES

(A)RN/L = 2.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (00012) 0 0A17.LTPT138.000 3.(021C7F5M4)(V107E23)(V705)

DATE ELEVON BETA RUDDER

REFERENCE INFORMATION
 SREF 87.1560 50.1N.
 LREF 19.3545 INCHES
 BREF 14.0502 INCHES
 XTRP 12.5770 INCHES
 YTRP 6.0000 INCHES
 ZTRP 6.0000 INCHES
 SCALE .0150 SCALE

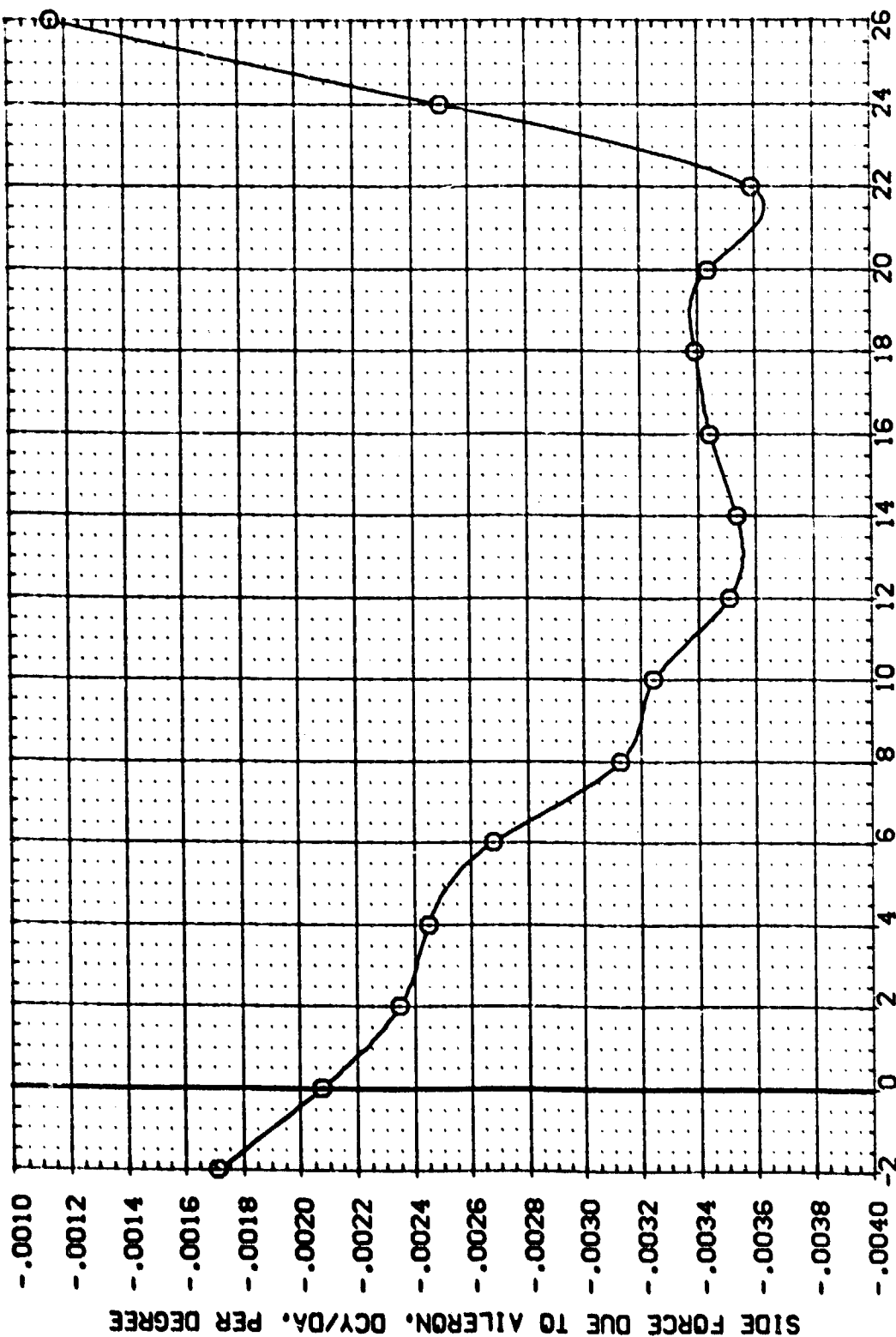


FIGURE 21 1398 ORBITER (N3D N0SE) AILERON EFFECTIVENESS DERIVATIVES

(A)RN/L = 2.50

DATA SET SYMBOL: (JPP012) ○ CONFIGURATION DESCRIPTION: 0A17.LTPT138.ORB 3.(821C7F3M4)(V107E23)(V7R5)

REFERENCE INFORMATION	
SREF	87.1560 SO. IN.
UREF	19.3543 INCHES
BREF	14.0502 INCHES
XPRP	12.5770 INCHES
YPRP	.0000 INCHES
ZPRP	6.0000 INCHES
SCALE	.0150 SCALE

DAILYN: 6.000 ELEVON: -6.000 BETA: .000 RUDDER: .000

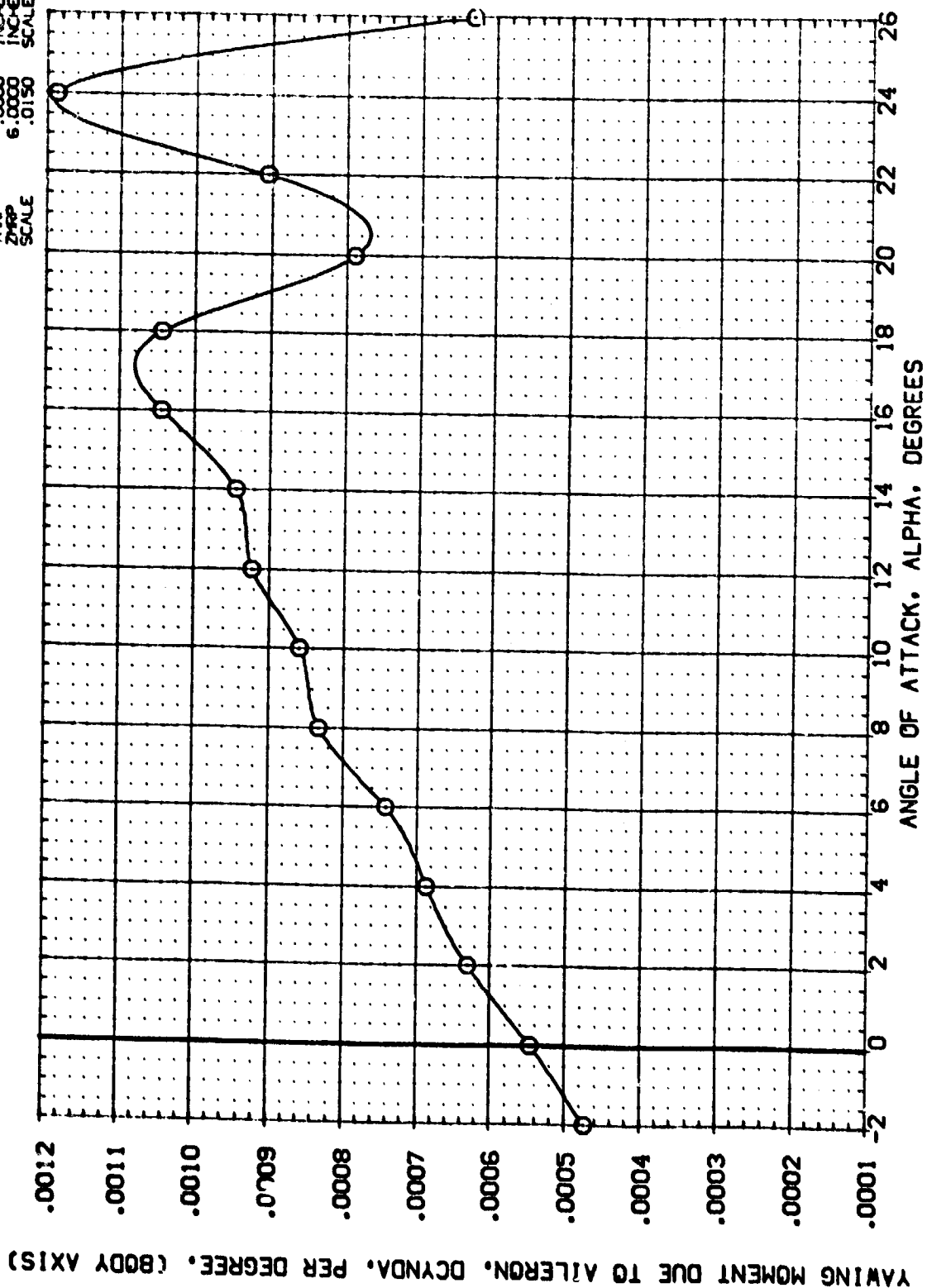


FIGURE 21 1398 ORBITER (MOD NOSE)AILERON EFFECTIVENESS DERIVATIVES

CADRN/L = 4.70



DATA SET SYMBOL: (JPP012) \bigcirc CONFIGURATION DESCRIPTION: OA17-L1PT138-098 3.(021CTFSM)(V107E23)(V7R5)

DAILYRN	ELEVON	BETA	RUDDER	REFERENCE INFORMATION	
6.000	-6.000	.000	.000	SREF	87.1562 SO.IN.
				LREF	19.3545 INCHES
				BREF	14.0502 INCHES
				XMRP	12.5770 INCHES
				YMRP	.0000 INCHES
				ZMRP	6.0000 INCHES
				SCALE	.0150 SCALE

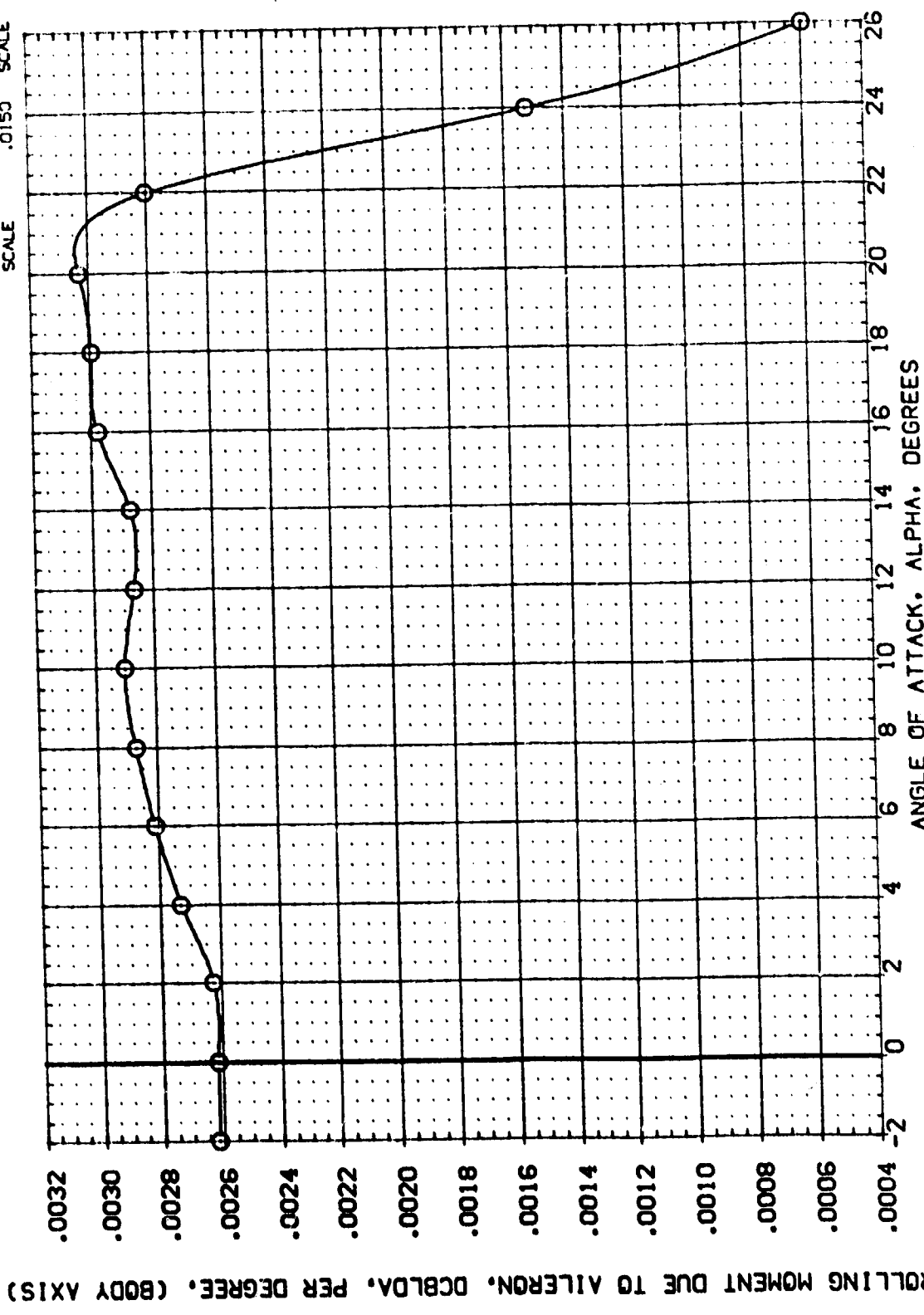


FIGURE 21 139B ORBITER (MOD NOSE) AILERON EFFECTIVENESS DERIVATIVES

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DATA TURN	ELEVON	BETA	RUDDER	REFERENCE INFORMATION
(JPP012)	0 DA17.LTPT138.028 3.(821C75M4)(V107E23)(V7R5)	6.000	-6.000	.000	.000	SREF 87.1560 50. IN.
						LREF 19.3545 INCHES
						BREF 14.0502 INCHES
						XPRP 12.5770 INCHES
						YPRP 6.0000 INCHES
						ZPRP 6.0000 INCHES
						SCALE .0150

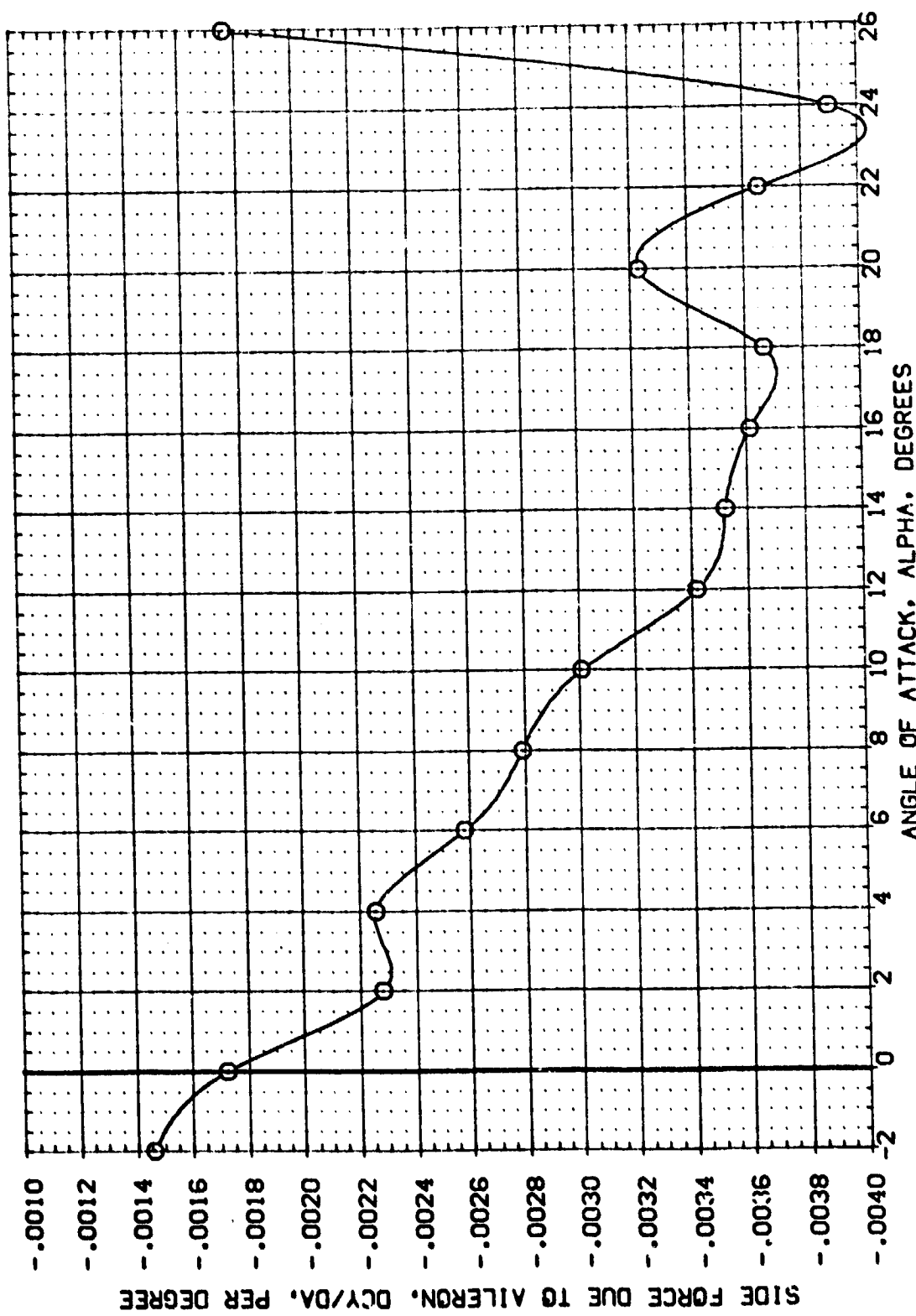


FIGURE 21 1398 ORBITER (MOD NOSE) AILERON EFFECTIVENESS DERIVATIVES

(A)RN/L = 4.70



DATA SET SYMBOL: (JPP012) \bigcirc CONFIGURATION DESCRIPTION: 0A17-LIFT138-088 3.(B21C7FSM4)(V107E23)(V7R5)

REFERENCE INFORMATION:

REFERENCE	INCHES
SREF	87.1560
LREF	19.3545
BREF	14.0502
XMRP	12.5770
YMRP	6.0000
ZMRP	6.0000
SCALE	.0150

DA1RN 6.000 ELEVON -6.000 BETA .000 RUDDER .000

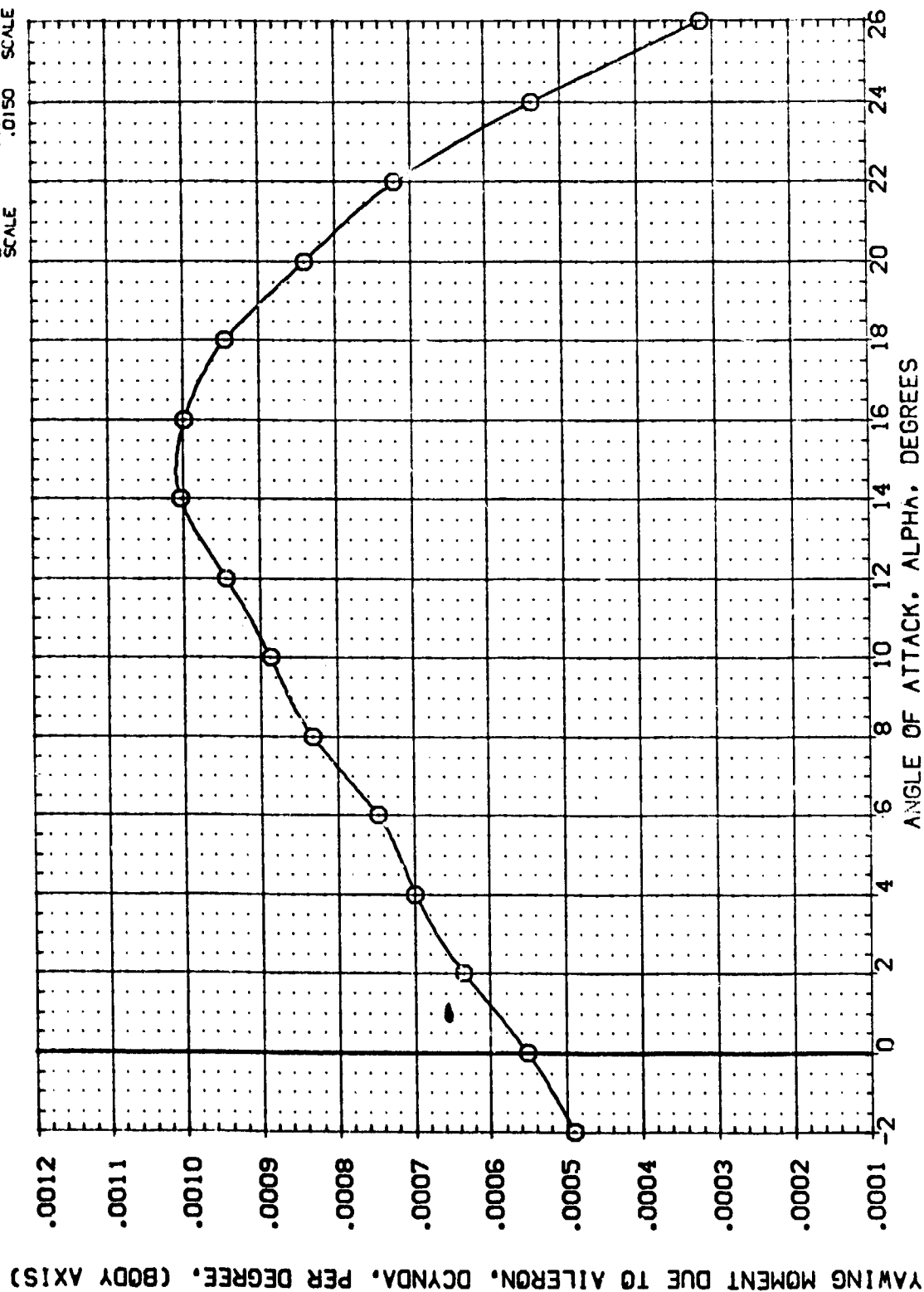


FIGURE 21 139B ORBITER (MOD NOSE) AILERON EFFECTIVENESS DERIVATIVES

(A)RN/L = 10.00

DATA SET SYMBOL ○ Q017.LTPT138.088 3.(821C7F5M4)(V107E23)(V7R5)

CONFIGURATION DESCRIPTION

REFERENCE INFORMATION

REF	87.1560	50.1N
LREF	19.3545	INCHES
BREF	14.0502	INCHES
XMRP	12.5170	INCHES
YMRP	.0000	INCHES
ZMRP	6.0000	INCHES
SCALE	.0150	SCALE

DAILRN 6.000 ELEVON -6.000 BETA .000 RUDDER .000

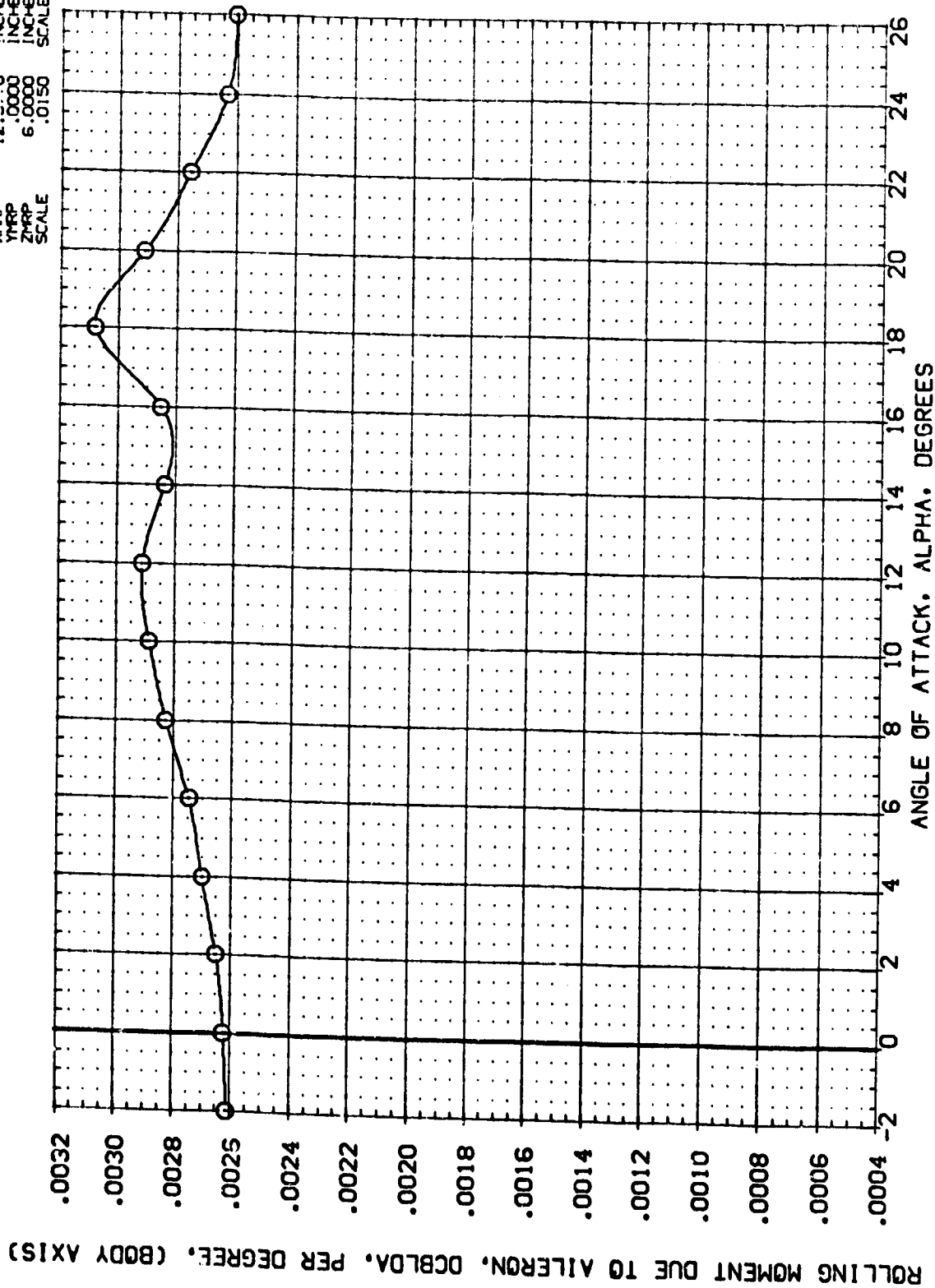


FIGURE 21 139B ORBITER (MOD NOSE) AILERON EFFECTIVENESS DERIVATIVES

(A)RN/L = 10.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (JPP012) ○ 0A17.LTPT138.0RB 3.(B21C7FSM4)(V107E2C1)(V7RS)

REFERENCE INFORMATION	
SREF	87.1560 INCHES
LREF	19.3545 INCHES
BREF	14.6502 INCHES
XMRP	12.5770 INCHES
YMRP	6.0000 INCHES
ZMRP	6.0000 INCHES
SCALE	.0150

DAYLN ELEVON BETA RUDDER
 6.000 -6.000 .000 .000

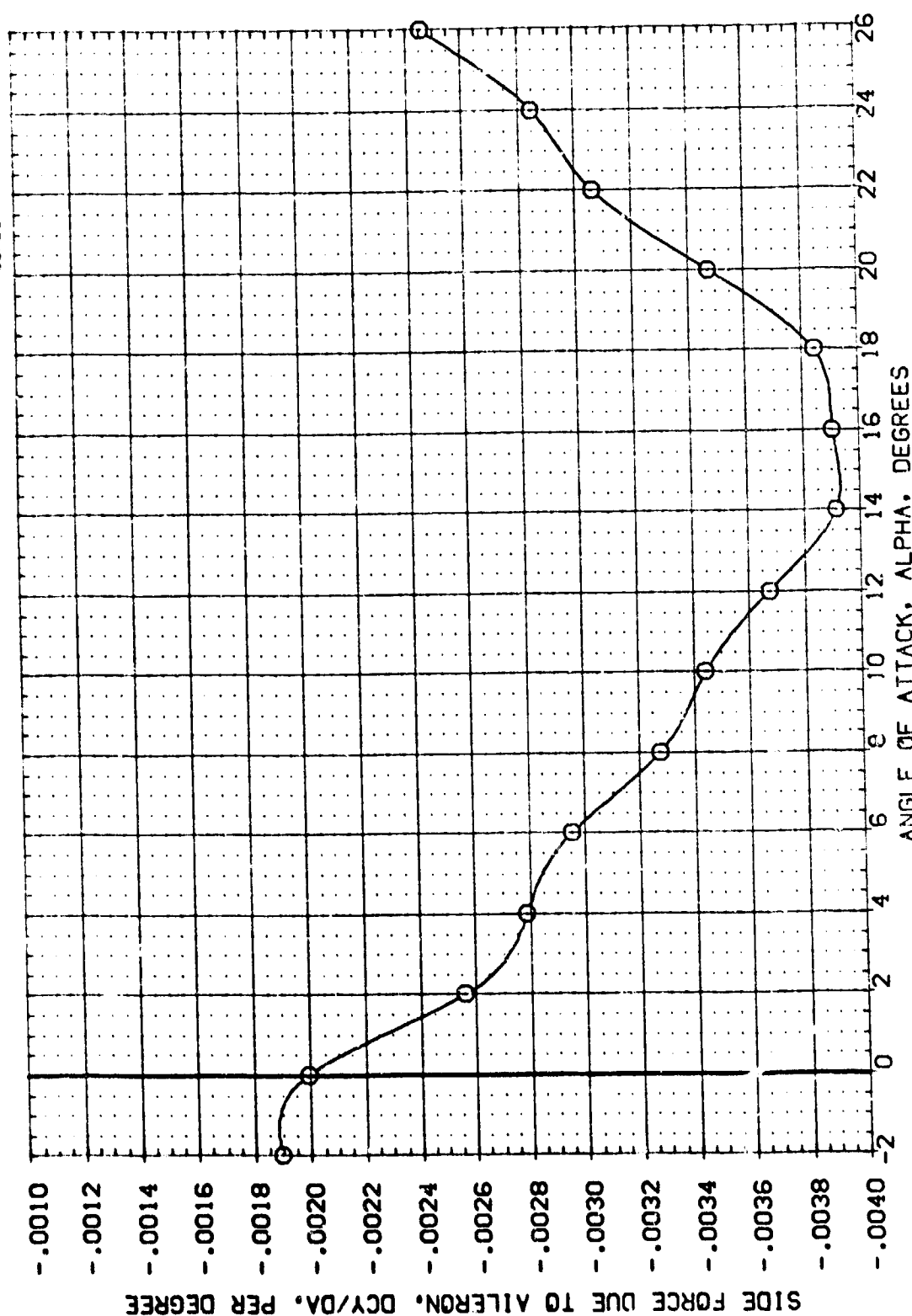


FIGURE 21 139B ORBITER (MOD NOSE) AILERON EFFECTIVENESS DERIVATIVES

(A)RN/L = 10.00

DATA SET SYMBOL CON FIGURATION DESCRIPTION
(JF0012) O 0A17-LTPT138.008 3. (821C75M4)(V107E23)(V7R5)

C.ILRN ELEVON BETA RUDDER
6.000 -6.000 .000

REFERENCE INFORMATION
SREF 87.1560 50. IN.
LREF 19.3545 INCHES
BREF 14.0502 INCHES
XRRP 12.5770 INCHES
YRRP 6.0000 INCHES
ZRRP 6.0000 INCHES
SCALE .0150 SCALE

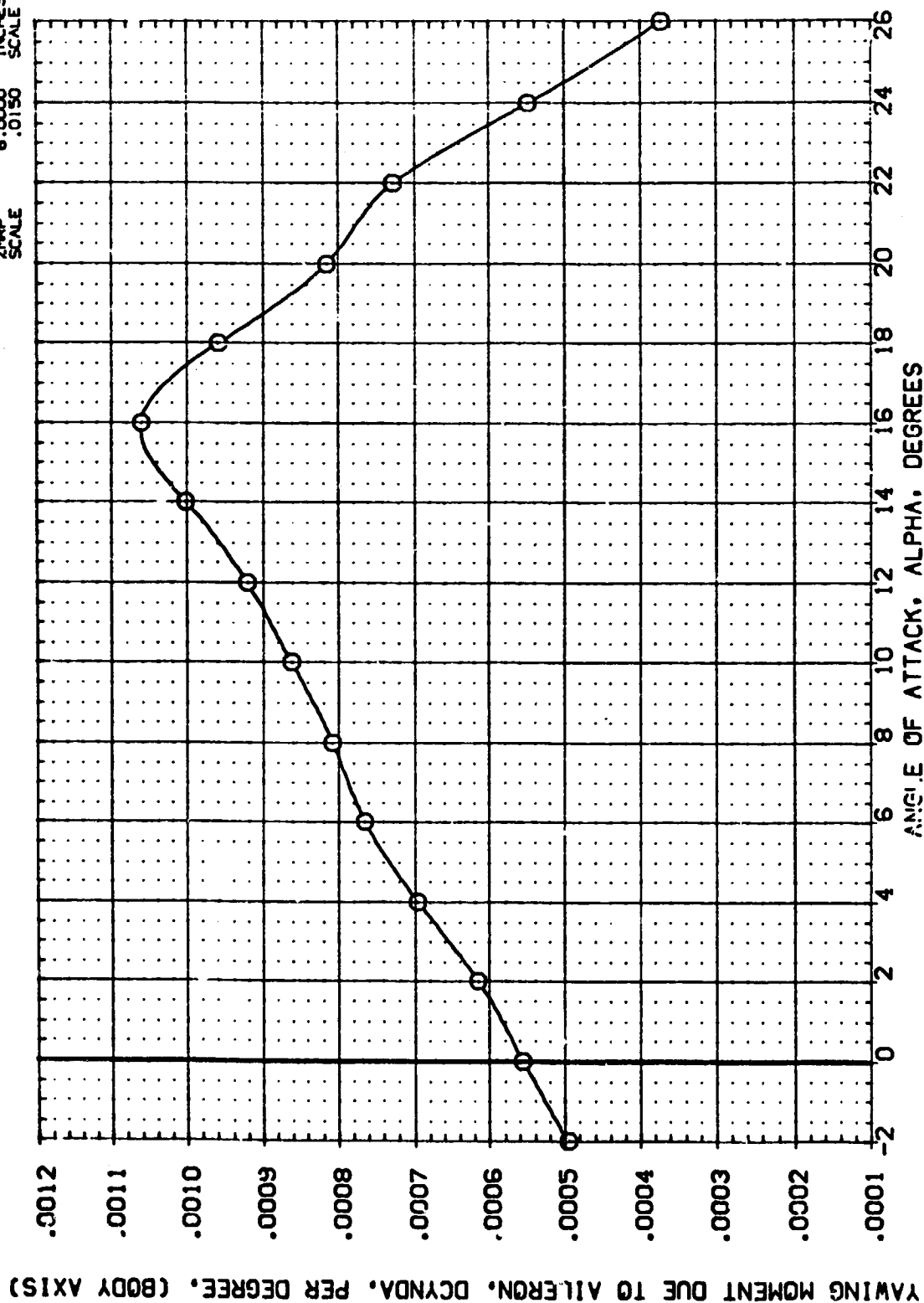
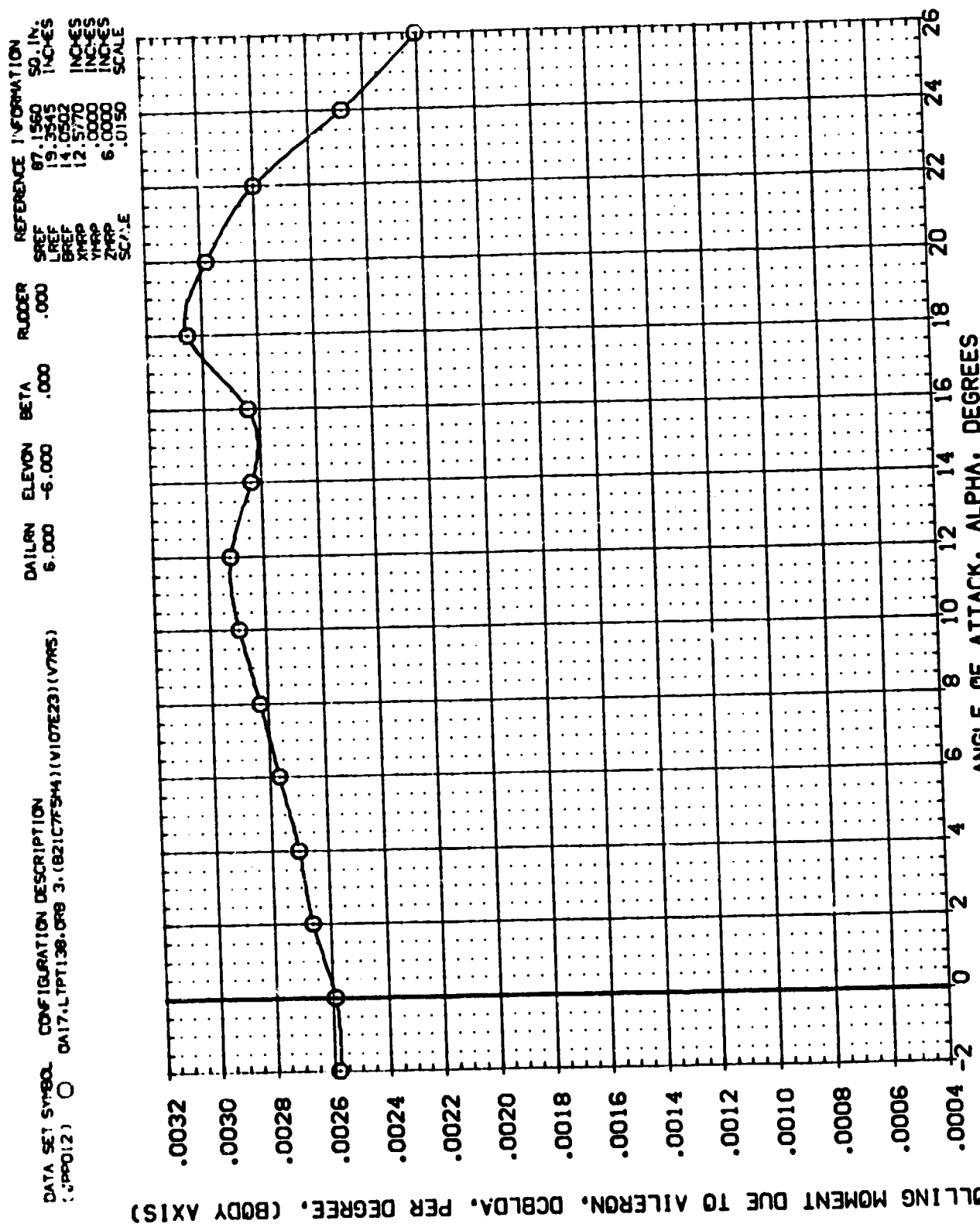


FIGURE 21 139B ORBITER (MOD NOSE)AILERON EFFECTIVENESS DERIVATIVES

(A)RN/L = 12.50



DATA SET SYMBOL ○ CONFIGURATION DESCRIPTION 0A17.L1PT138.058 3.(B21C7FS4)(V107E23)(V7R3)

REFERENCE INFORMATION

REF	87.1560	50.10
SREF	19.3545	INCHES
LREF	14.0502	INCHES
BREF	12.5770	INCHES
XPRP	6.0000	INCHES
YPRP	6.0000	INCHES
ZPRP	6.0000	INCHES
SCALE	.0150	SCALE

DAILRN ELEVON BETA RUDDER

6.000 -6.000 .000

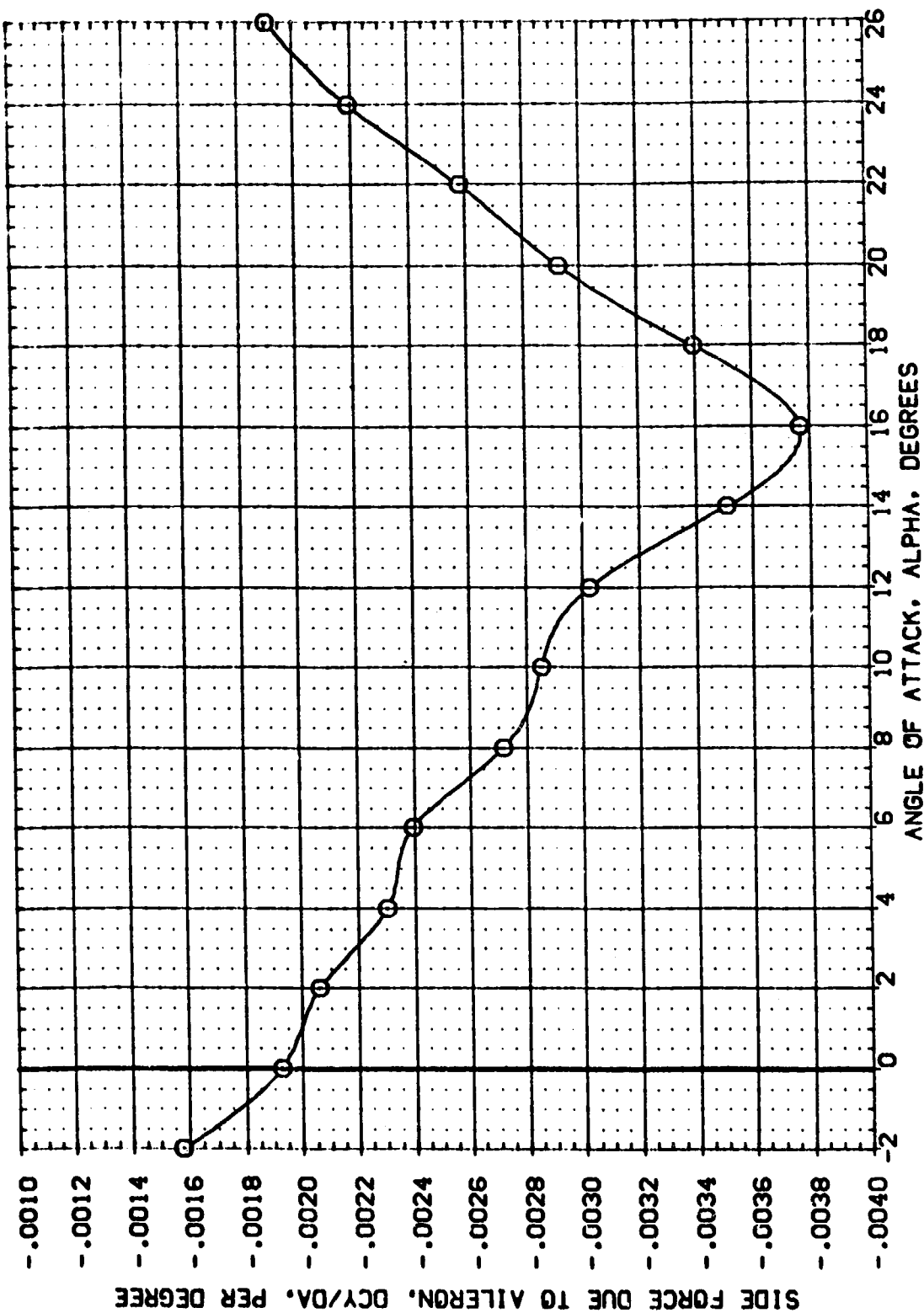


FIGURE 21 1398 ORBITER (MOD NOSE) AILERON EFFECTIVENESS DERIVATIVES

(A)RN/L = 12.50



0A17-LTPT138.0RB2A.(B10C507F4 M3)(W37E18)(V5R5)(APP027)

SYMBOL	RM/L	BETA	PARAMETRIC VALUES	REFERENCE INFORMATION
□	2.409	ELEVTR	.000	SREF
◇	4.674	RLODER	.000	LREF
△	10.124	SPDRK	.000	BREF
	12.167		.000	XREF
			.000	YREF
			.000	ZREF
			.0150	SCALE

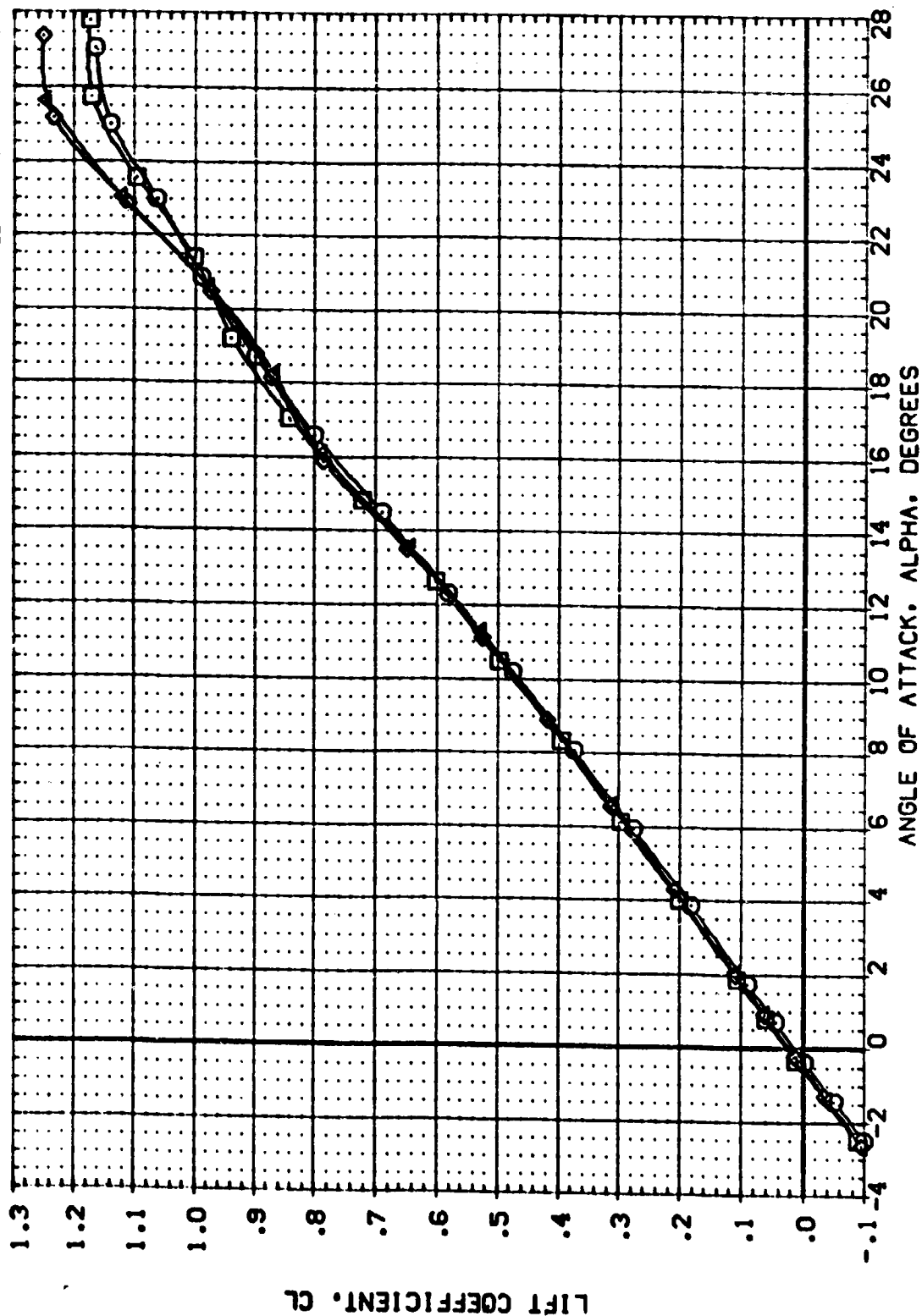


FIGURE 22 089B ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.0R82A.(B10C507F4 M3)(W87E18)(V5R5)(APP027)

SYMBOL	RVL	BETA	PARAMETRIC VALUES	
□	2.409	.000	MACH	.250
◇	4.674	.000	ATLRON	.000
△	10.124	.000	BOFLAP	-14.250
	12.167	24.520	SPOBRK	

REFERENCE INFORMATION	
SREF	87.1580
LREF	19.5245
BREF	14.0502
YREF	13.1469
ZREF	.0000
SCALE	6.0000
	.0150

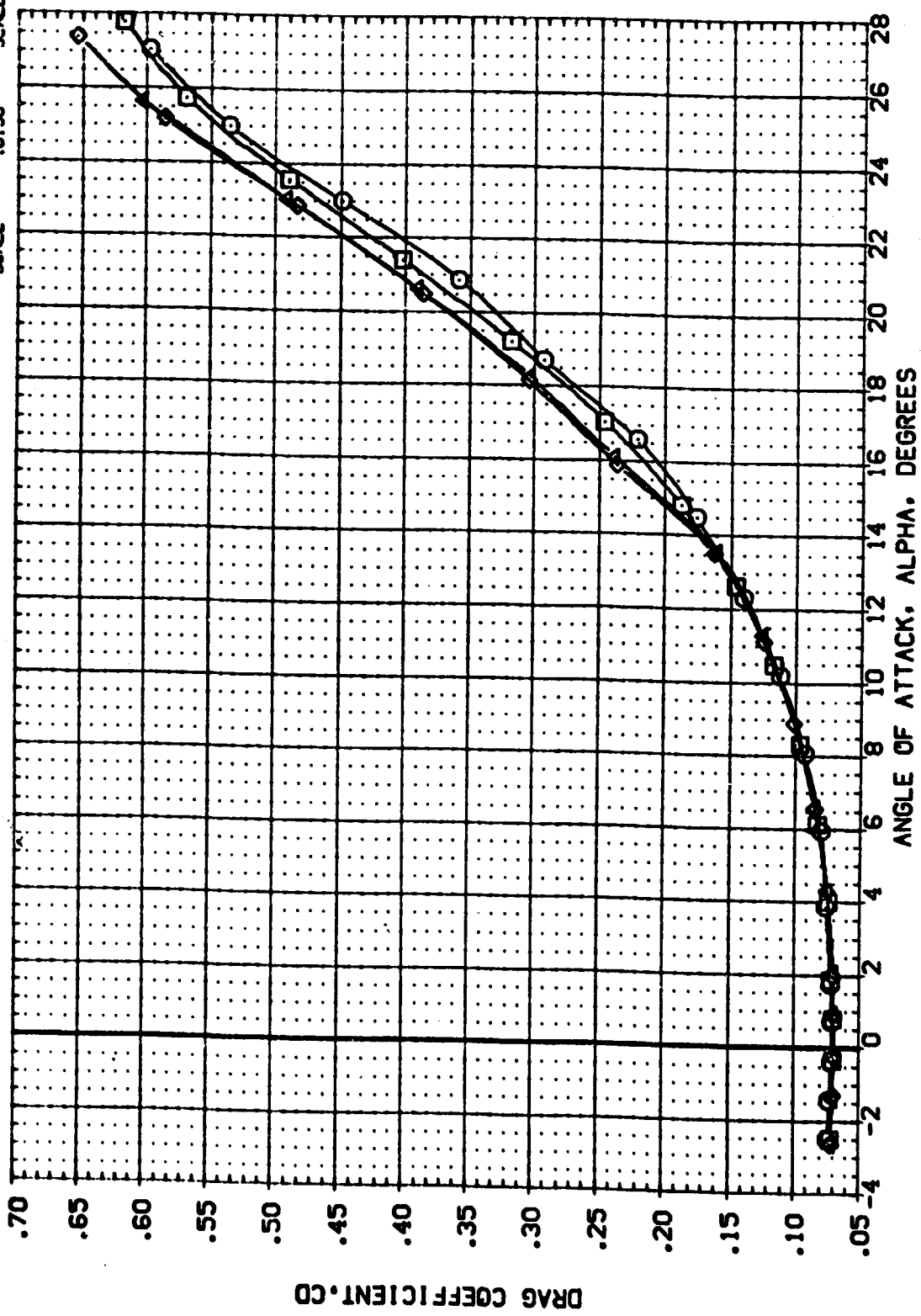


FIGURE 22 0898 ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS



0A17.LTPT138.0R82A.(B10C5D7F4 M3)(W87E18)(V5R5)(APP027)

SYMBOL	RVUL	PARAMETRIC VALUES				REFERENCE INFORMATION				
		BETA	ELEVTR	BLDGR	SPDRK	SREF	LREF	BREF	YREF	ZREF
○	2.409	.000	.000	.000	24.920	87.1560	19.9245	14.0502	13.1453	.0000
□	4.674	.000	.000	.000	-14.250	19.9245	14.0502	13.1453	.0000	.0150
◇	10.124	.000	.000	.000		14.0502	13.1453	.0000	.0000	.0000
△	12.167					13.1453	.0000	.0000	.0000	.0000

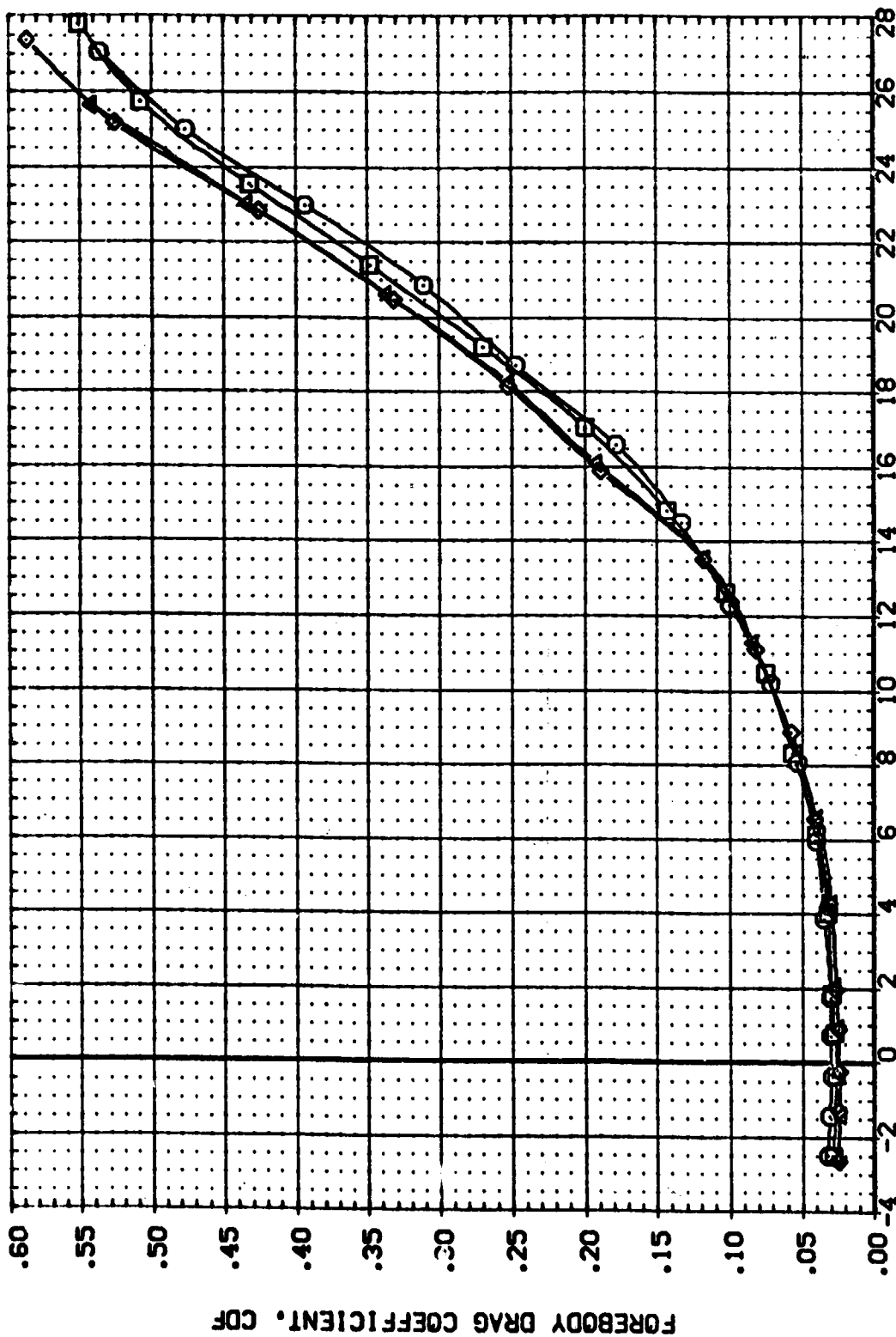


FIGURE 22 089B ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.0RB2A.(810C5D7F4 M3)(W87E18)(V5R5)(APP027)

SYMBOL	RV/L	BETA	PARAMETRIC VALUES	
○	2.409	ELEVTR	.000	MACH
□	4.674	R.ODER	.000	AILRON
◇	10.124	SPOBRK	.000	BOFLAP
△	12.167		24.920	

REFERENCE INFORMATION	
SREF	87.1560
LREF	13.9245
SRZF	14.0502
XRFP	13.1469
YRFP	.0000
ZRFP	6.0000
SCALE	.0150

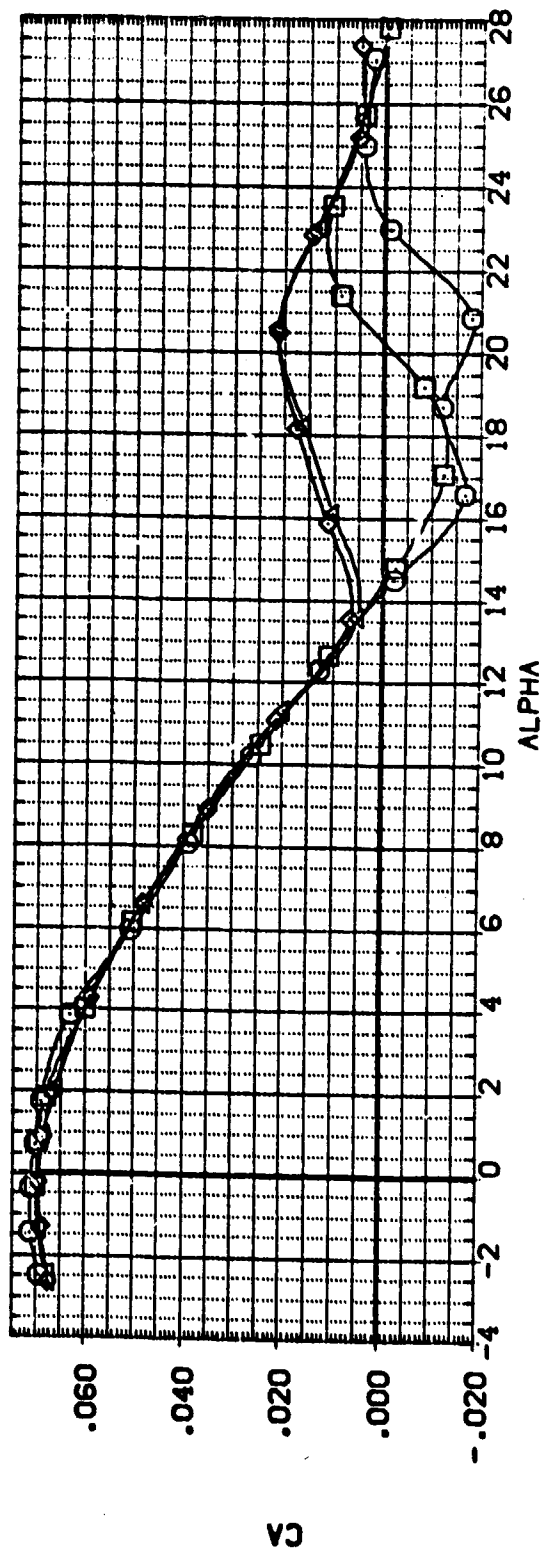
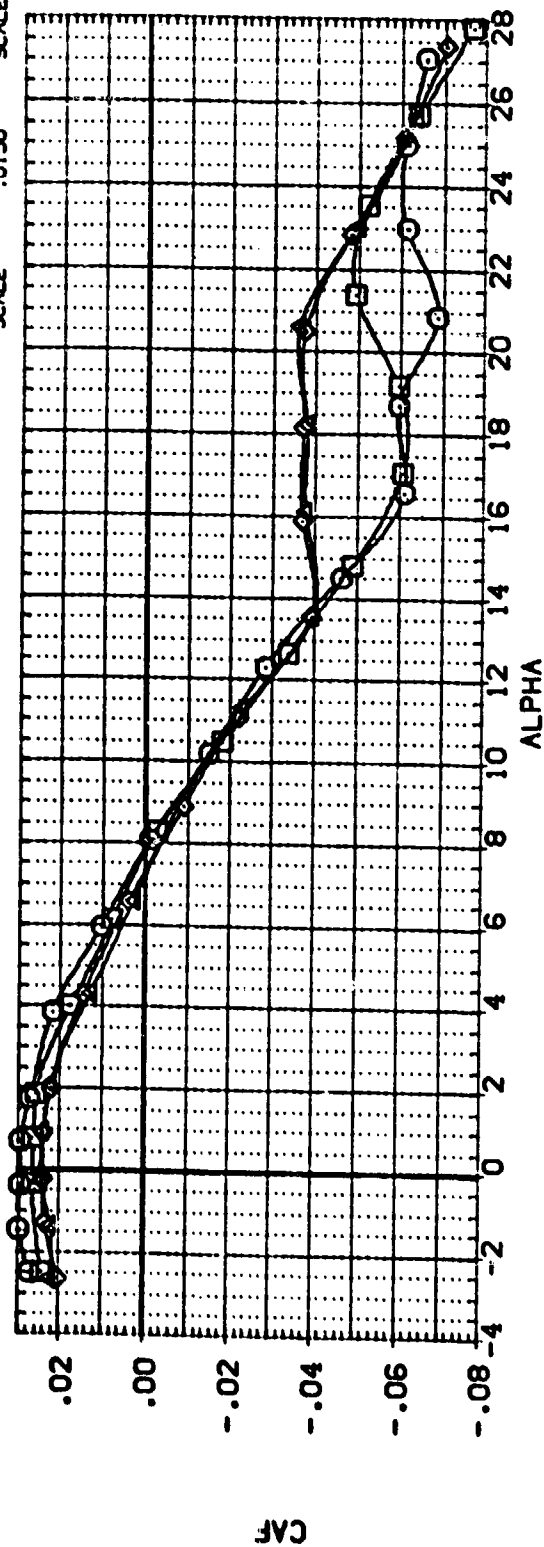


FIGURE 22 089B ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.0RB2A.(B10C507F4 M3)(W87E18)(V5R5)(APP027)

SYMBOL	RV/L	BETA	ELEVTR	R-DOOR	SPOBARK	PARAMETRIC VALUES	REF	INCHES	SCALE
○	2.409	.000	.000	.000	.250	MACH	87.1560	50. IN.	
□	4.674	.000	.000	.000	.000	AILRON	19.9245	INCHES	
◇	10.124	.000	.000	.000	-14.250	BOFLAP	14.0502	INCHES	
△	12.167	24.920					13.1459	INCHES	
							.0000	INCHES	
							6.0000	INCHES	
							.0150	INCHES	

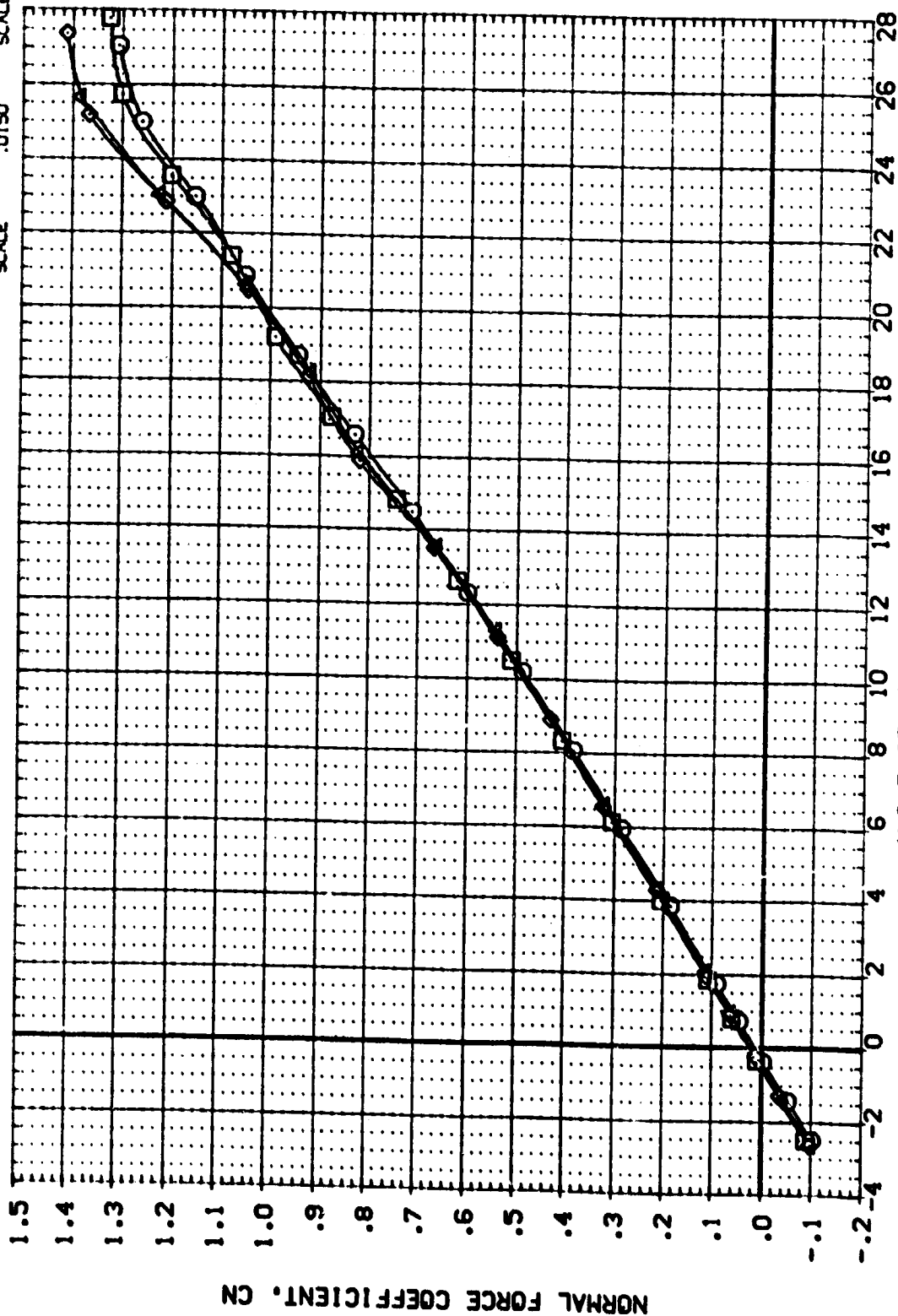


FIGURE 22 089B ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.0R82A.(B10C507F4 M3)(W87E18)(V5R5)(APP027)

PARAMETRIC VALUES			
BETA	.000	MACH	.250
ELEVTR	.000	AILRON	.000
RLODR	.000	BOFLAP	-14.250
SPOBRK	24.920		
REFERENCE INFORMATION			
SREF	87.1560	SD IN	
UREF	19.3245	INCHES	
XMRP	14.0502	INCHES	
YMRP	13.1469	INCHES	
ZMRP	.0000	INCHES	
SCALE	6.0000	INCHES	
	.0150	SCALE	

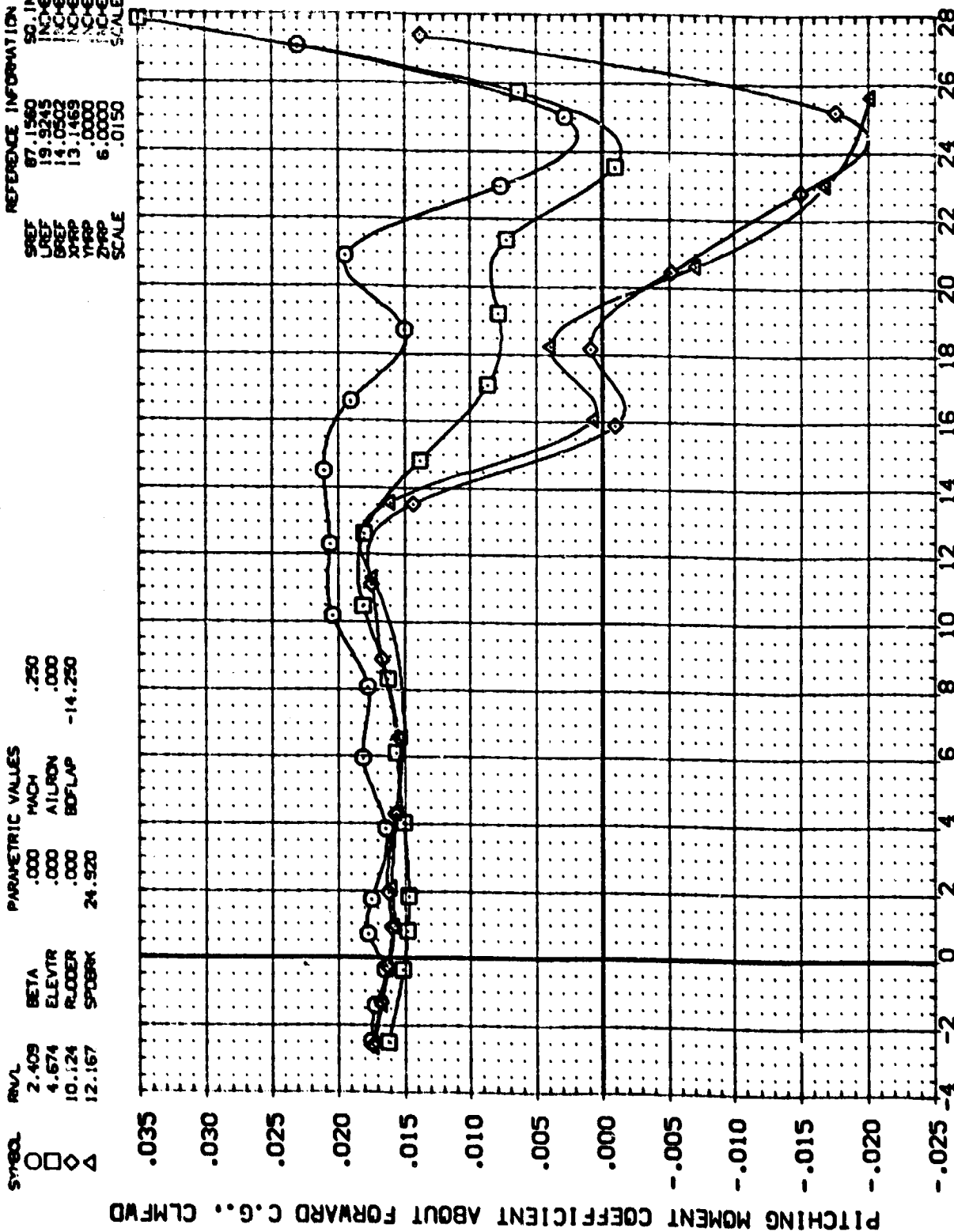


FIGURE 22 089B ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS



0A17.LIPT138.ORB2A.(B10C5D7F4 M3)(W87E18)(V5R5)(APP027)

SYMBOL		PARAMETRIC VALUES		REFERENCE INFORMATION	
○	RVL	BETA	MACH	SREF	50. IN.
□	ELEVTR	.000	.250	LREF	INCHES
◇	RJDER	.000	.000	BREF	INCHES
△	SPDRY	.000	-14.250	XMRP	INCHES
		24.920		YMRP	INCHES
				ZMRP	INCHES
				SCALE	.0150

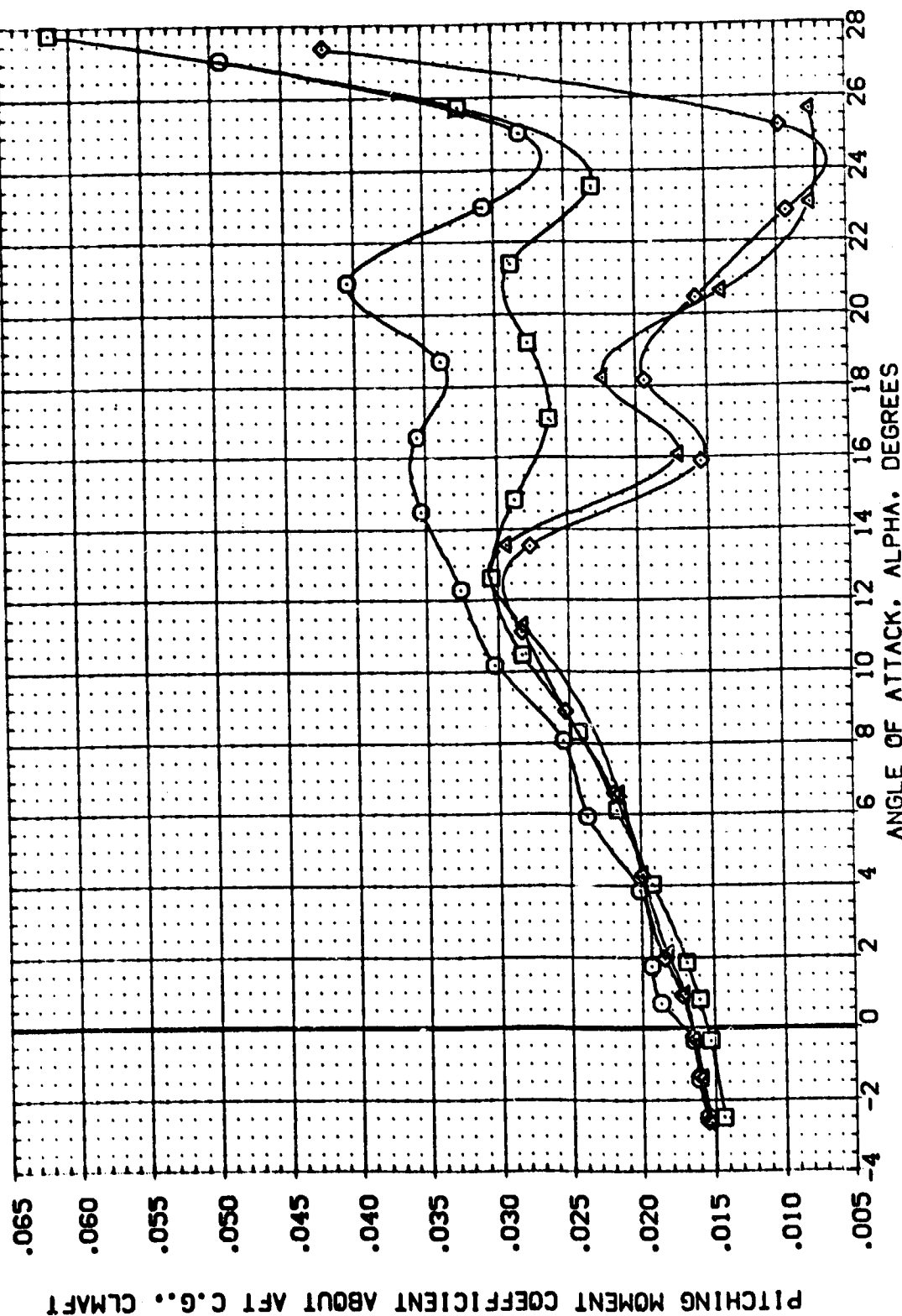


FIGURE 22 089B ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.0RB2A.(B10C5D7F4 M3)(W87E18)(V5R5)(APP027)

SYMBOL	RV/L	BETA	ELEVTR	RUDDER	SPODBK	PARAMETRIC VALUES	REFERENCE INFORMATION
□	2.409	.000	.000	.000	.250	MACH	SREF 87.1560
○	4.674	.000	.000	.000	.000	AILRON	UREF 19.9245
◇	10.124	.000	.000	.000	-14.250	BOFLAP	BREF 14.0502
△	12.167	24.920				SPDRP	YREF 13.1469
						SPDRP	YREF 6.0000
						SPDRP	YREF 6.0000
						SCALE	SCALE .0150

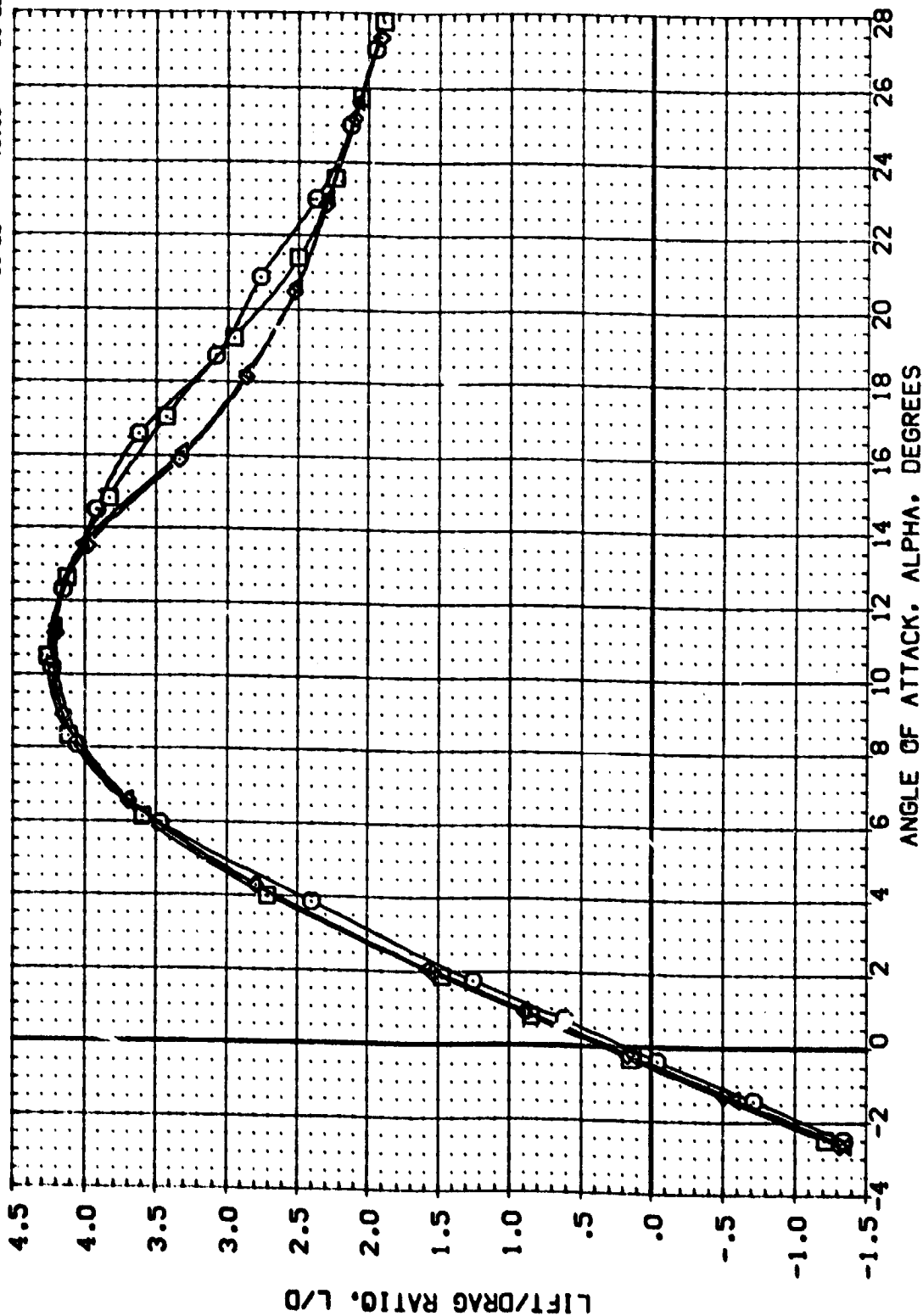


FIGURE 22 0898 ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

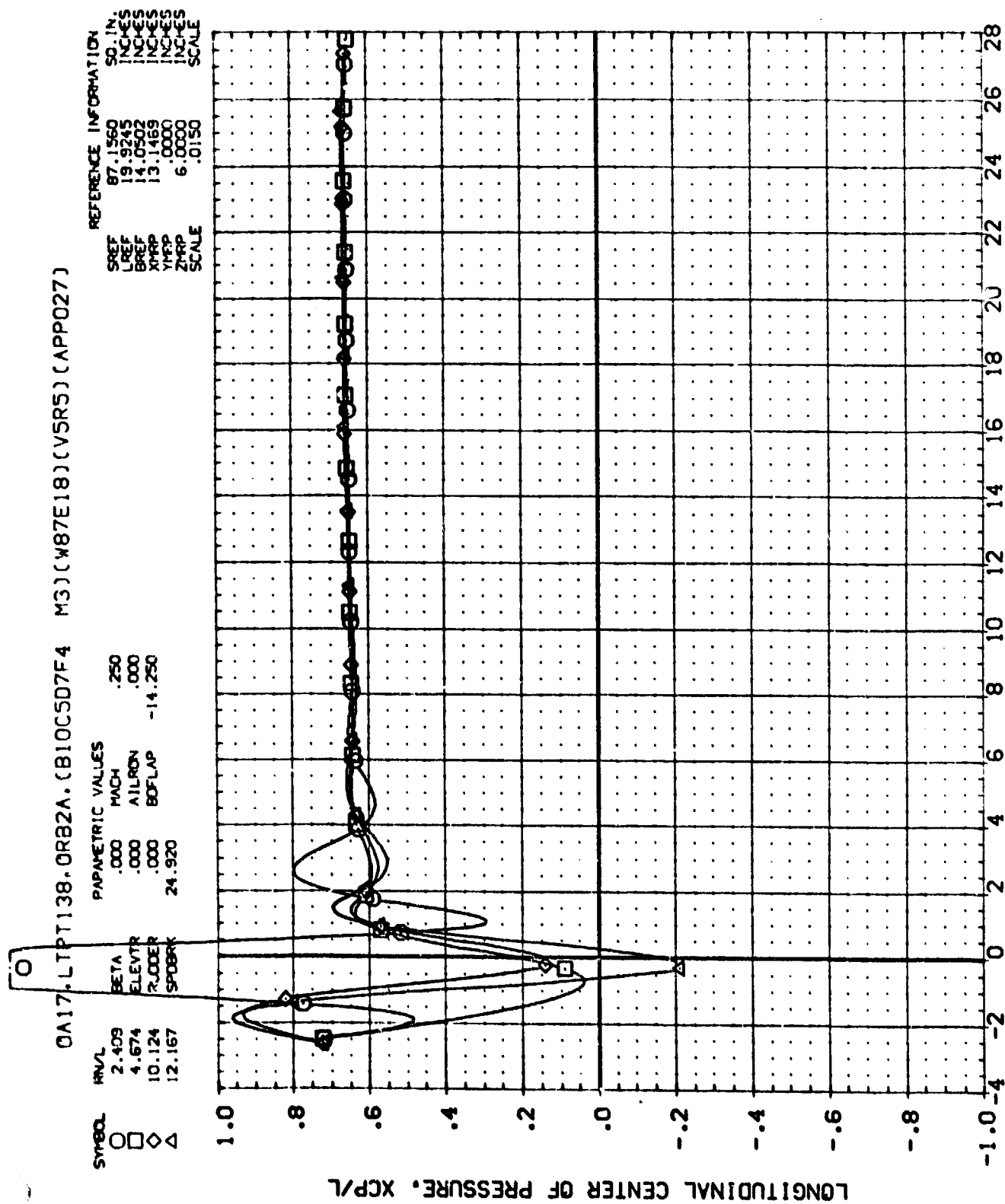


FIGURE 22 089B ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.0R82A.(B10C507F4 M3)(W87E18)(V5R5)(APP027)

SYMBOL	RV/L	PARAMETRIC VALUES				REFERENCE INFORMATION			
		BETA	MACH	AILRON	BOFLAP	SREF	SO, IN	INCHES	INCHES
○	2.409	.000	.250			LREF	19.9245	INCHES	INCHES
□	4.674	.000	.000			XREF	13.1469	INCHES	INCHES
△	10.124	.000	-14.250			YREF	6.0000	INCHES	INCHES
◇	12.167	24.920				ZREF	.0150	SCALE	SCALE

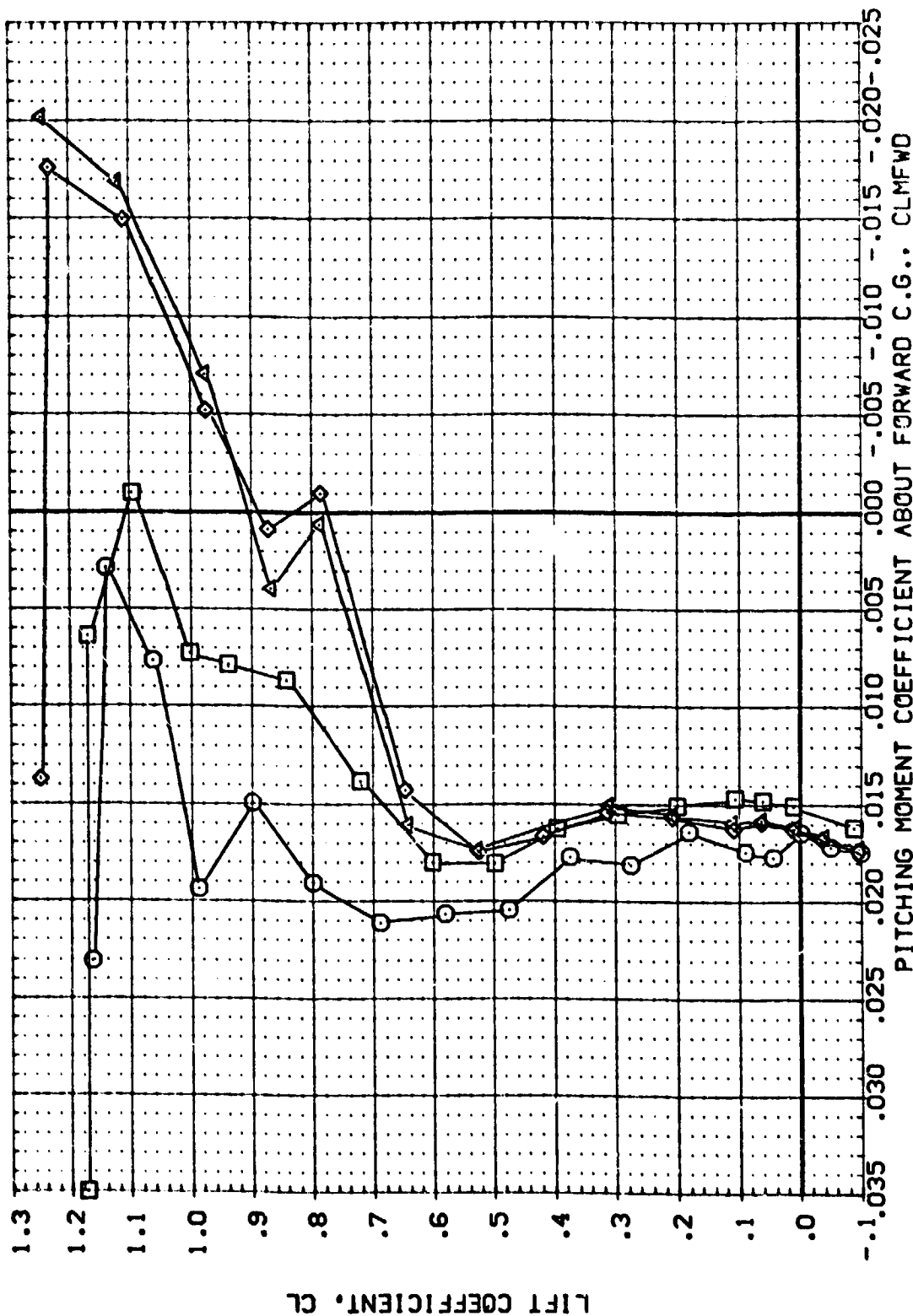
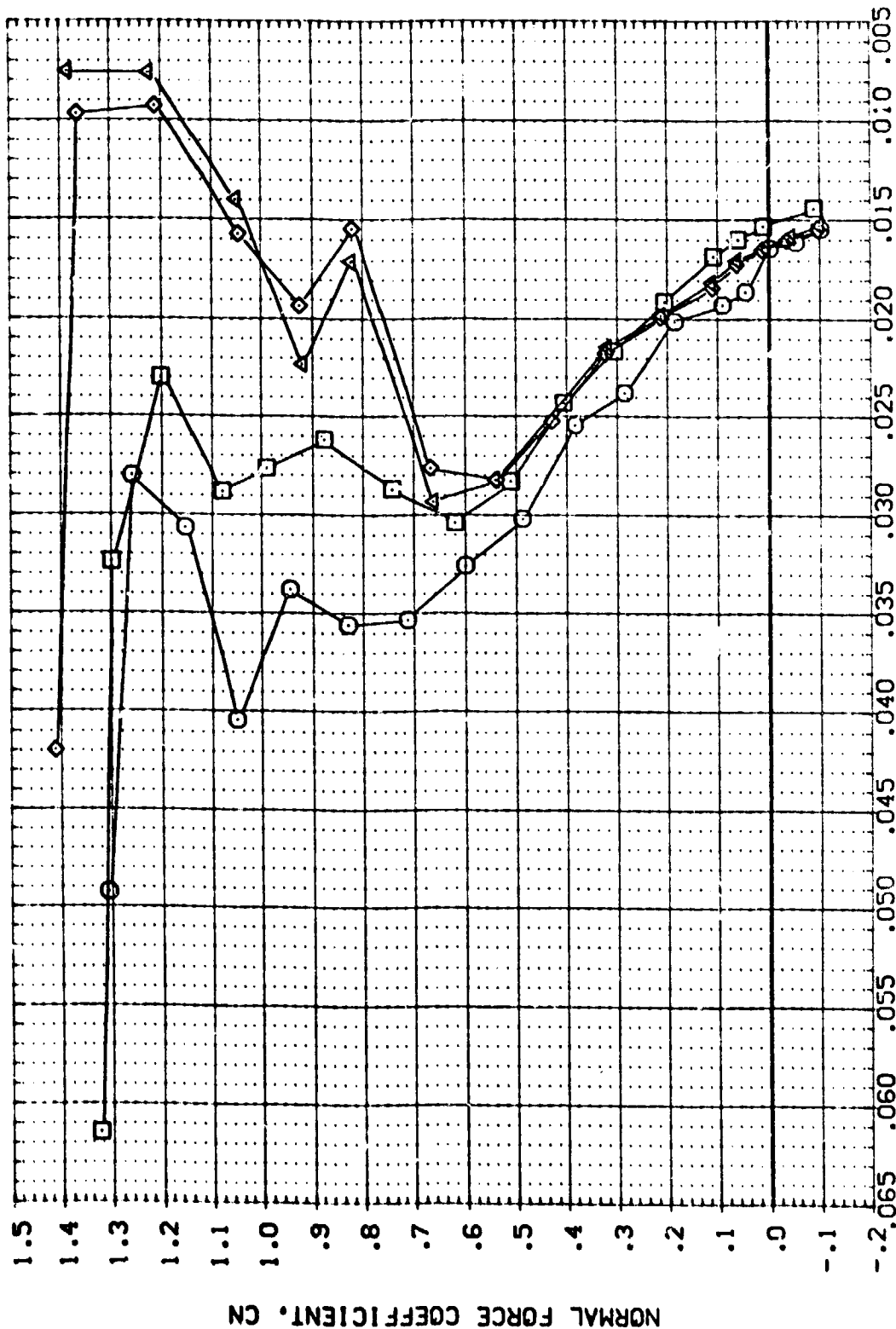


FIGURE 22 089B ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTHT138.0RB2A.(B10C507F4 M3)(W87E18)(V5R5)(APP027)

SYMBOL	RNL	PARAMETRIC VALUES				REFERENCE INFORMATION			
		BETA	ELEVTR	MACH	AILRON	SREF	LREF	SO IN.	SCALE
□	2.409	.000	.000	.250	.000	87.1560	19.9245	INCHES	
○	4.674	.000	.000	.000	.000	14.0502	13.1469	INCHES	
◇	10.124	.000	.000	-14.250	.000	6.0000	6.0000	INCHES	
△	12.167	SPOBRK	24.920					INCHES	



PITCHING MOMENT COEFFICIENT ABOUT AFT C.G. CMAFT

FIGURE 22 0898 ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.0R82A.(B10C5D7F4 M3)(W87E18)(V5R5)(APP027)

PARAMETRIC VALUES		REFERENCE INFORMATION	
SYMBOL	RV/L	REF	SO IN
○	2.479	LIFT	19.5245
□	4.674	BODY	14.0502
◇	10.124	WING	13.1469
△	12.167	WING	6.0000
		WING	6.0000
		SCALE	.0150

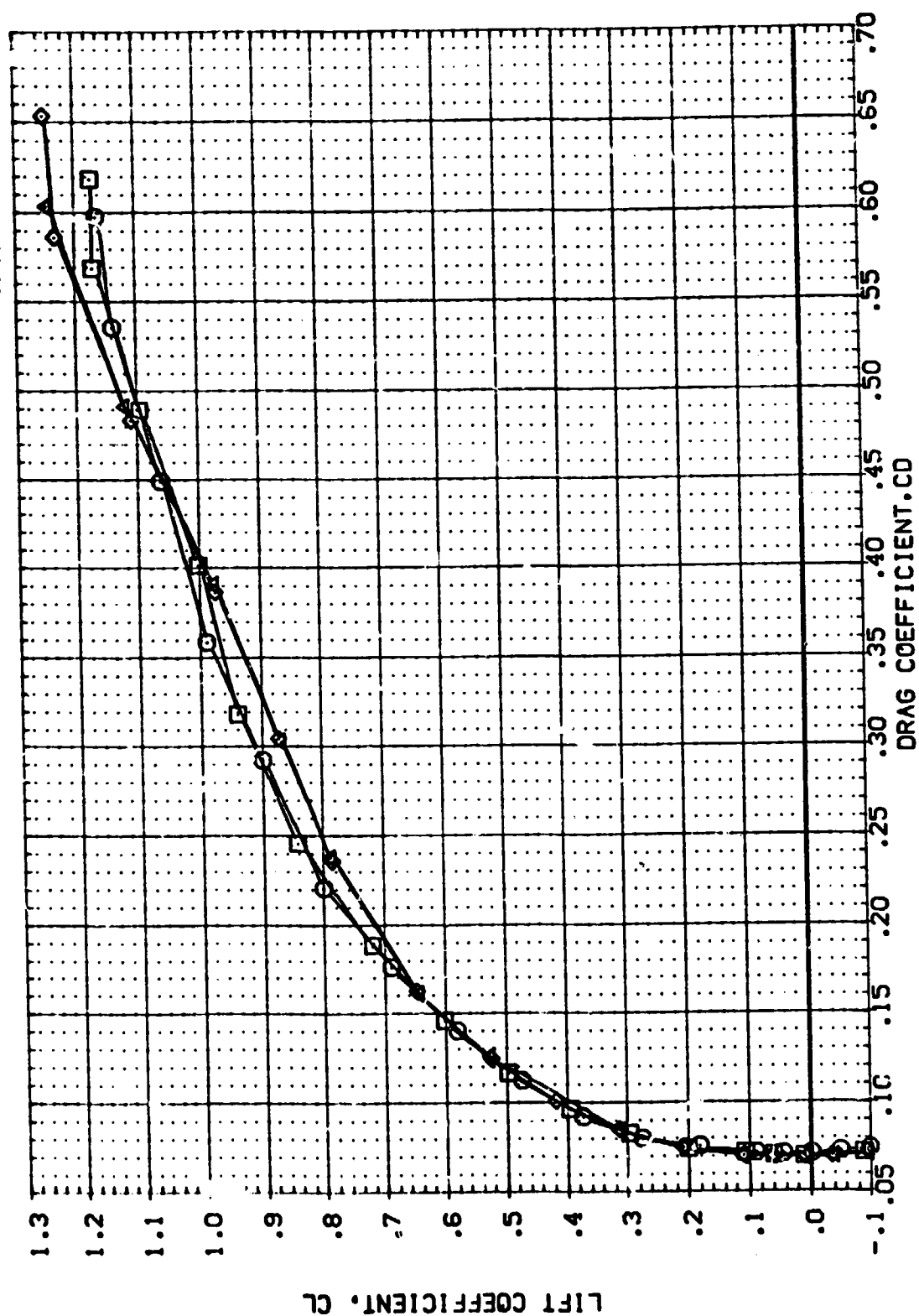


FIGURE 22 0898 ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS



0A17.LTPT138.0RB2A.(B10C5D7F4 M3)(W87E18)(V5R5)(RPP027)

SYMBOL		FN/L	BETA	PARAMETRIC VALUES			REFERENCE INFORMATION		
□		2.409		.000	MACH	.250	SREF	87.1560	50. IN.
□		4.674	ELEVTR	.000	AILRON	.000	LSREF	10.9245	INCHES
◇		10.124	RUDDER	.000	BOFLAP	-14.250	XHREF	14.0502	INCHES
△		12.167	SPOBRK	24.930			YHREF	13.1468	INCHES
							ZHREF	6.0000	INCHES
							SCALE	.0150	SCALE

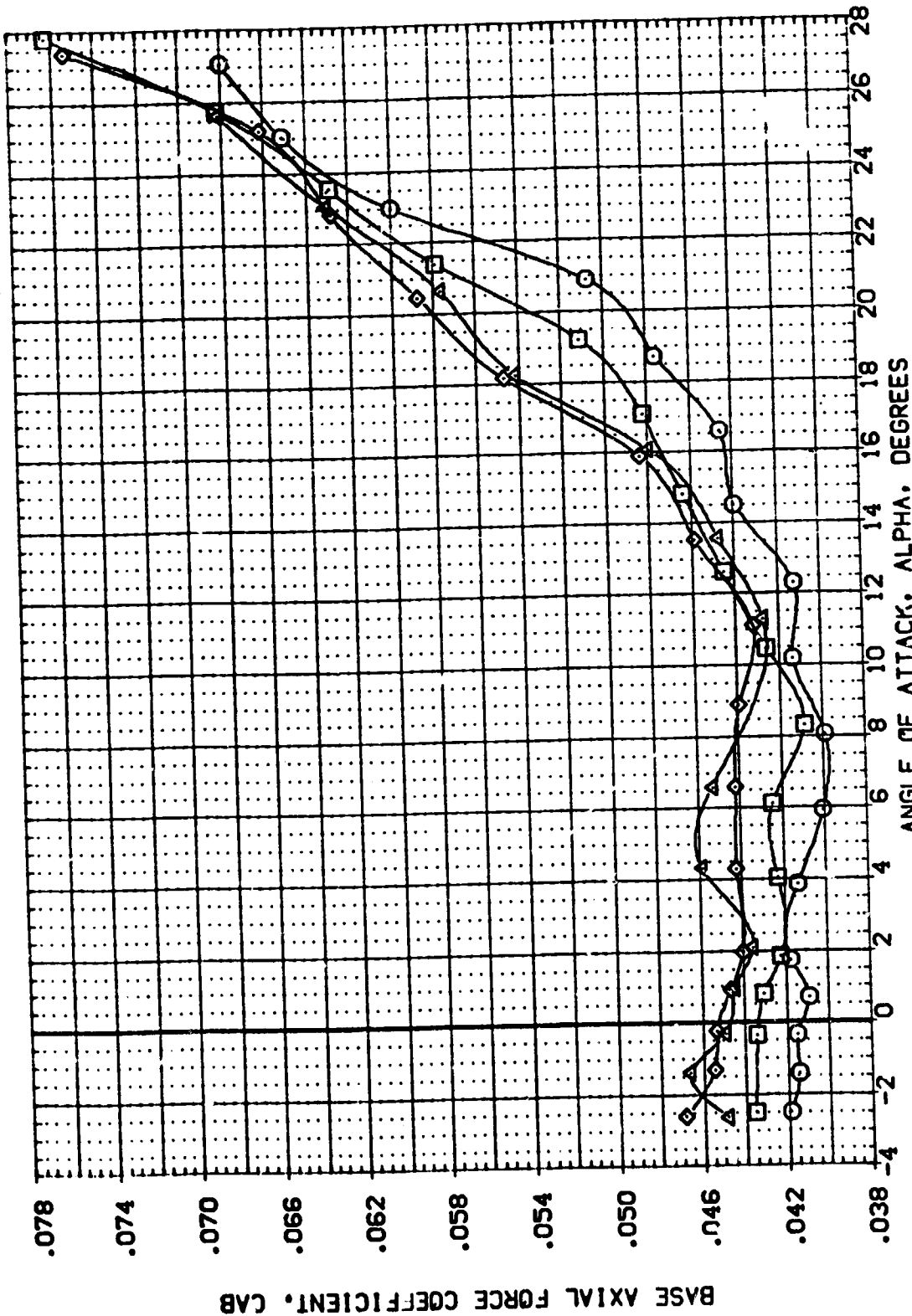


FIGURE 22 0898 ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.0RB2A.(B10C5D7F4 M3)(W87E18)(V5R5)(APP026)

SYMBOL	RV/L	BETA	ELEVTR	RUDDER	SPDRK	PARAMETRIC VALUES	MACH	AILRON	BOFLAP	SRF	LRF	BRF	XPRP	YPRP	ZPRP	SCALE	REFERENCE INFORMATION	SO, IN.	INCHES	INCHES	INCHES	INCHES	INCHES	SCALE
○	2.448					.000	.251											87.1560						
□	4.757					.000	.000											19.9245						
◇	10.266					.000	-14.250											1.0502						
△	11.988					.000												13.1469						
																		.0000						
																		6.0000						
																		.0150						

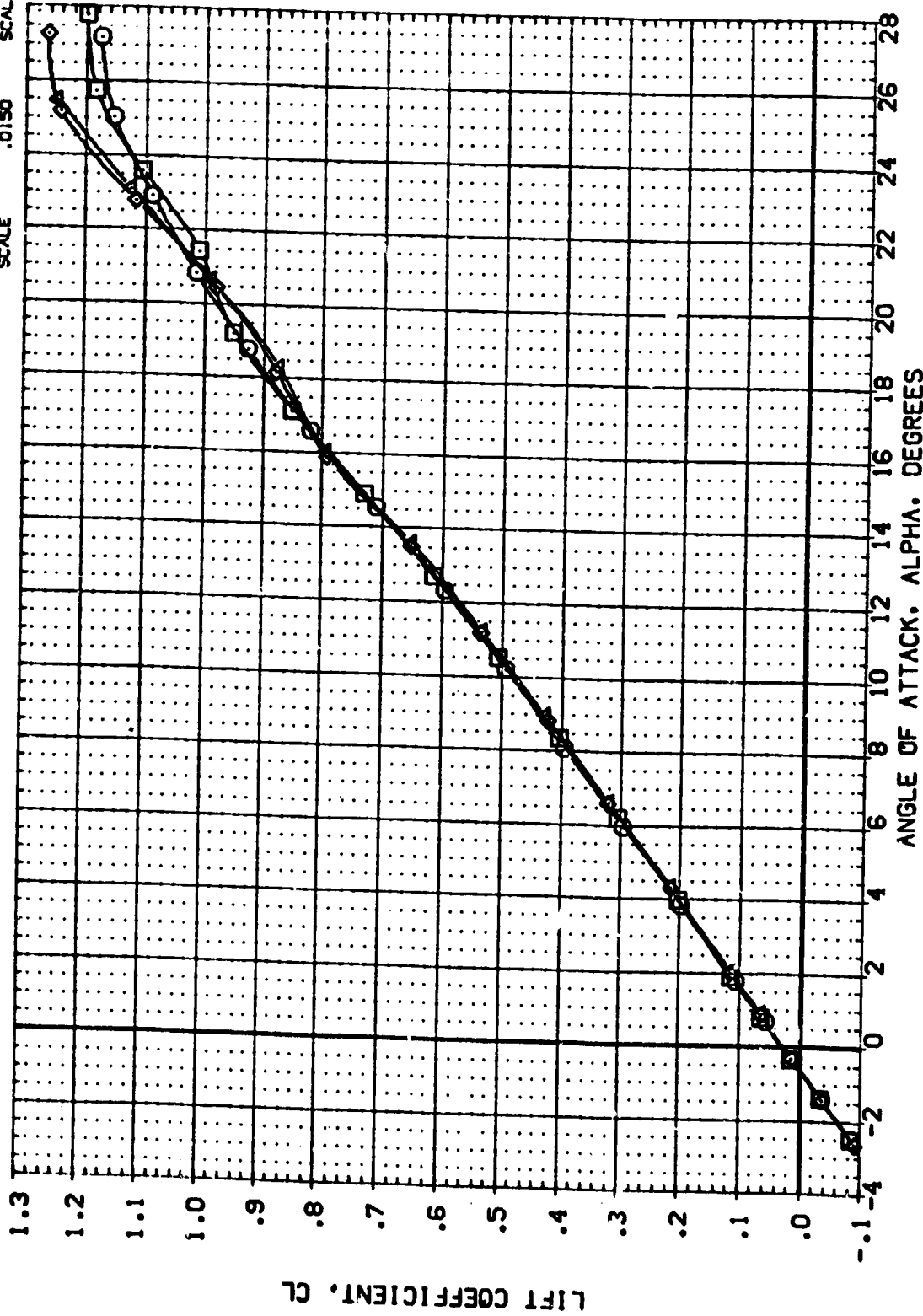


FIGURE 22 089B ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.ORB2A.(B10C507F4 M3)(W87E18)(V5R5)(APP026)

SYMBOL	PARAMETRIC VALUES				REFERENCE INFORMATION			
	R/V/L	BETA	MACH		SREF	50.IN.	INCHES	
○	2.448	.000	.251		LREF	19.9245	INCHES	
□	4.757	.000	.000		BREF	14.0502	INCHES	
◇	10.266	.000	-14.250		XTRP	13.1469	INCHES	
△	11.988	.000			YTRP	6.0000	INCHES	
					ZTRP	6.0000	INCHES	
					SCALE	.0150	SCALE	

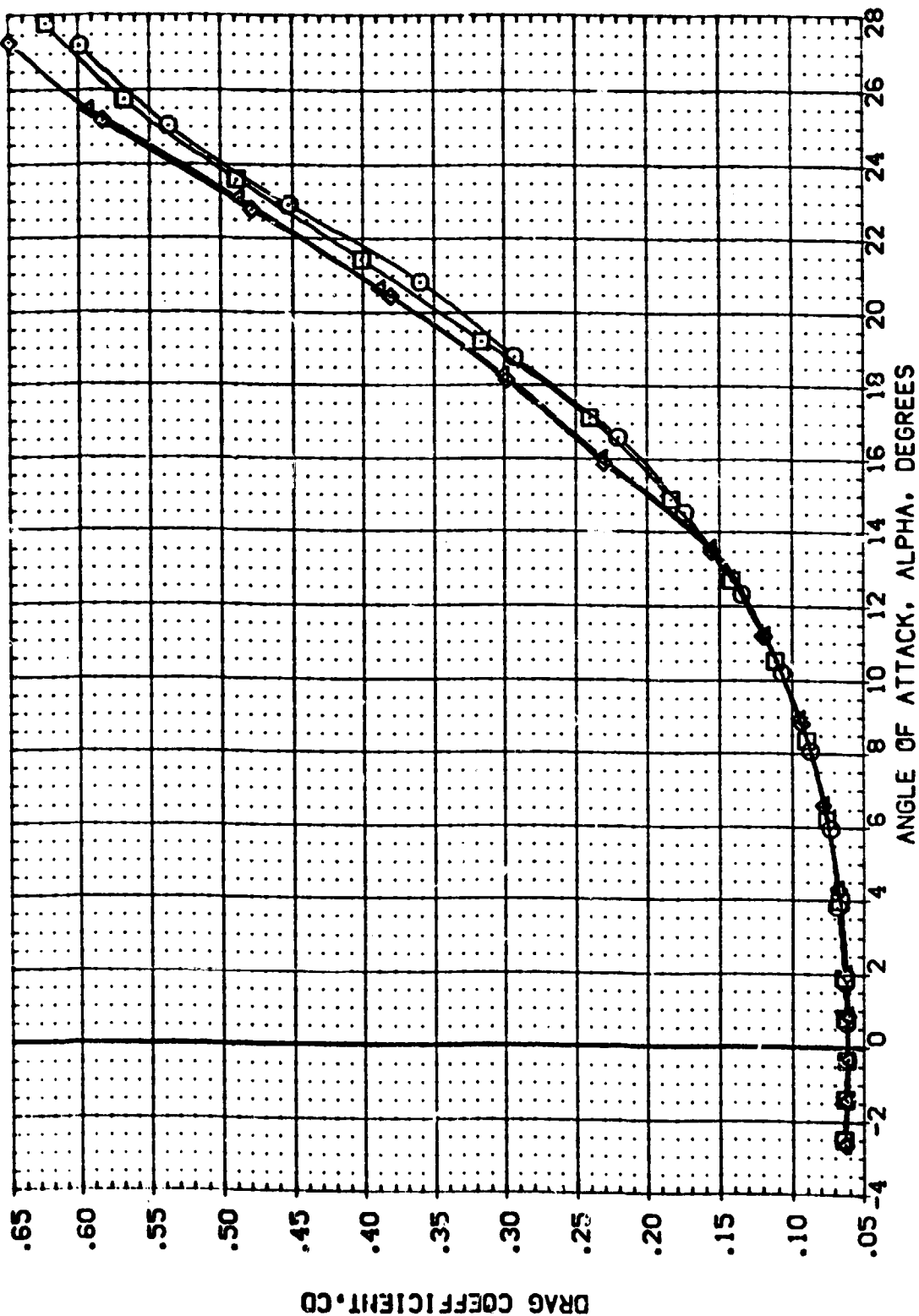


FIGURE 22 0898 ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.0RB2A.(B10C5D7F4 M3)(W87E18)(V5R5)(APP026)

SYMBOL	RV/L	BETA	PARAMETRIC VALUES	REFERENCE INFORMATION
○	2.448	ELEVTR	.000	SREF
□	4.757	RLOOR	.000	LREF
△	10.265	SPOBRK	.000	BREF
	11.988		.000	YREF
			.000	ZREF
			.000	SCALE
			.0150	SCALE
				50 IN
				INCHES
				INCHES
				INCHES
				INCHES
				INCHES

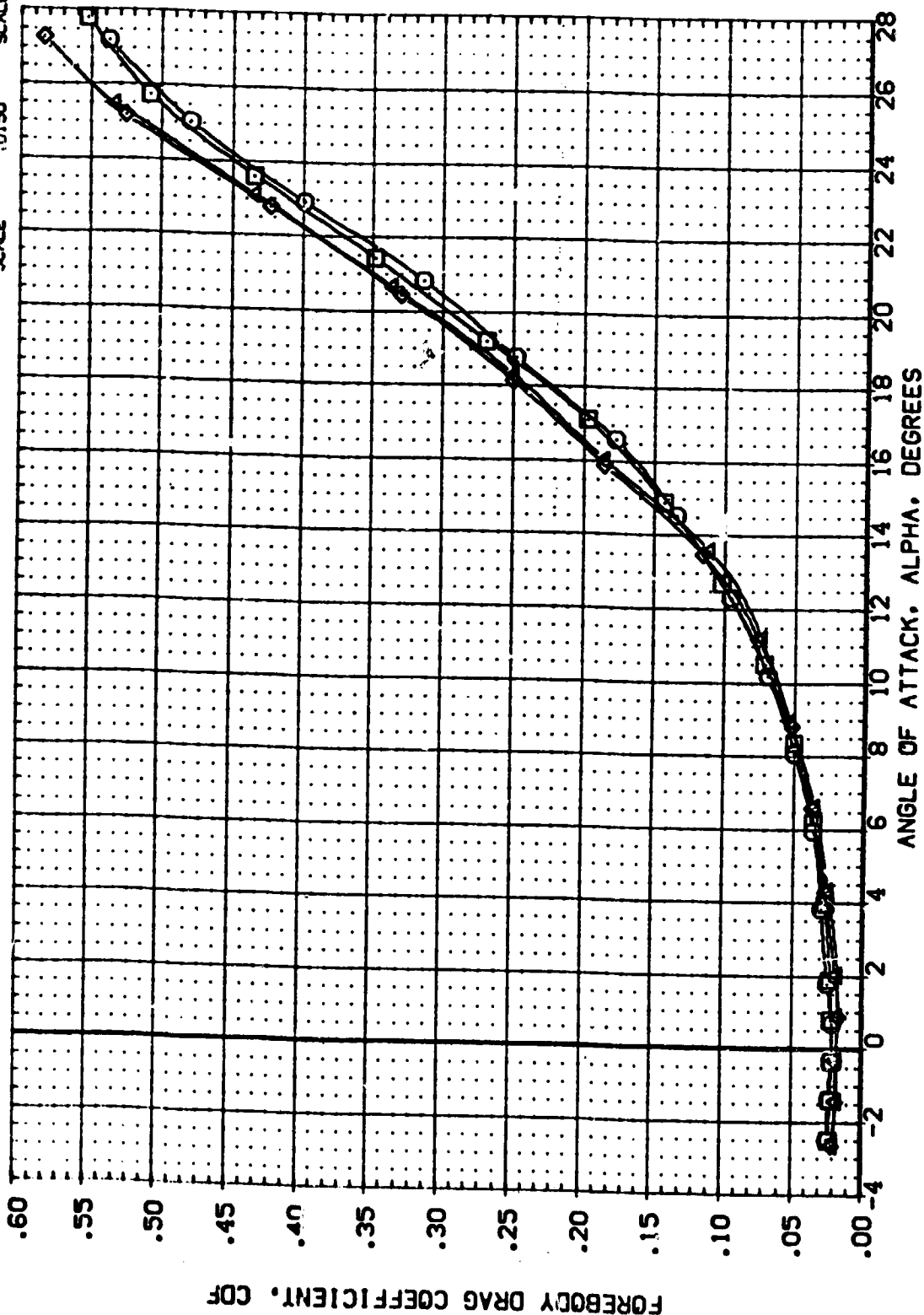


FIGURE 22 089B ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS



0A17.LTPT138.0R82A.(B10C5D7F4 M3)(W87E18)(V5R5)(APP026)

PARAMETRIC VALUES				REFERENCE INFORMATION			
RV/L	BETA	.000	MACH	SREF	87.1560	50. IN.	
2.448	ELEVTR	.000	AIRLON	LREF	19.9245	INCHES	
4.757	RLOOR	.000	BOFLAP	BREF	14.0502	INCHES	
10.266	SPOBRK	.000		WAPP	13.1469	INCHES	
11.988				YAPP	6.0000	INCHES	
				ZAPP	6.0000	INCHES	
				SCALE	.0150	SCALE	

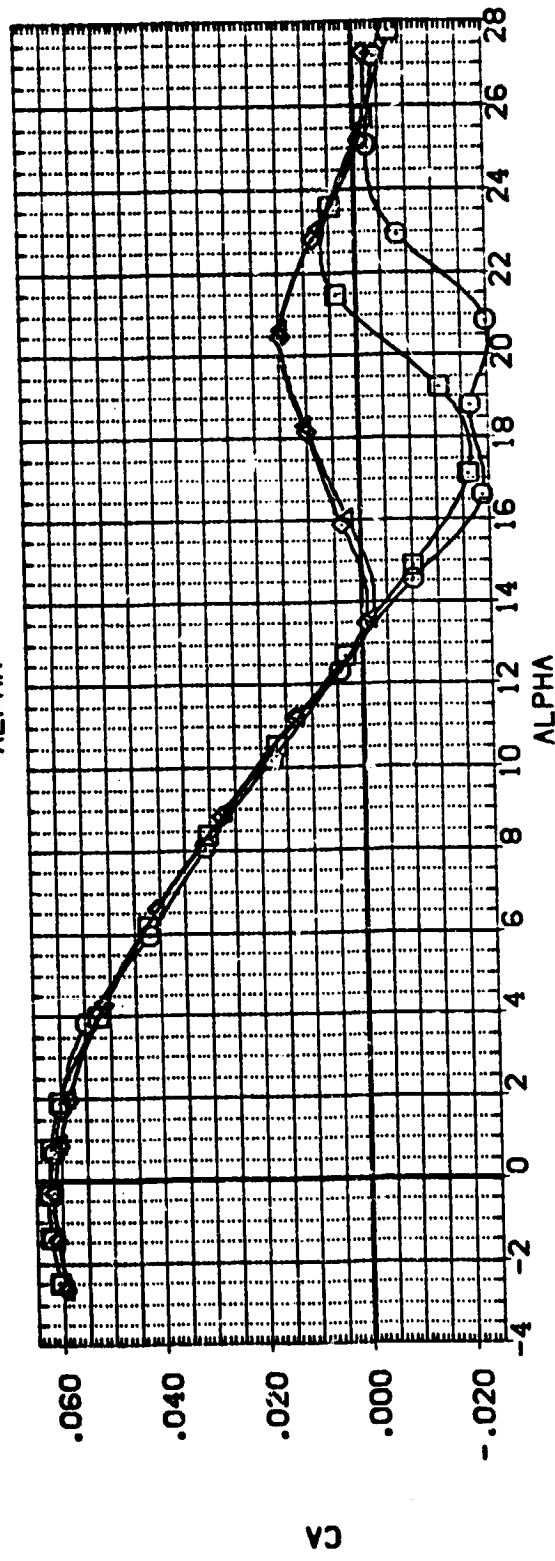
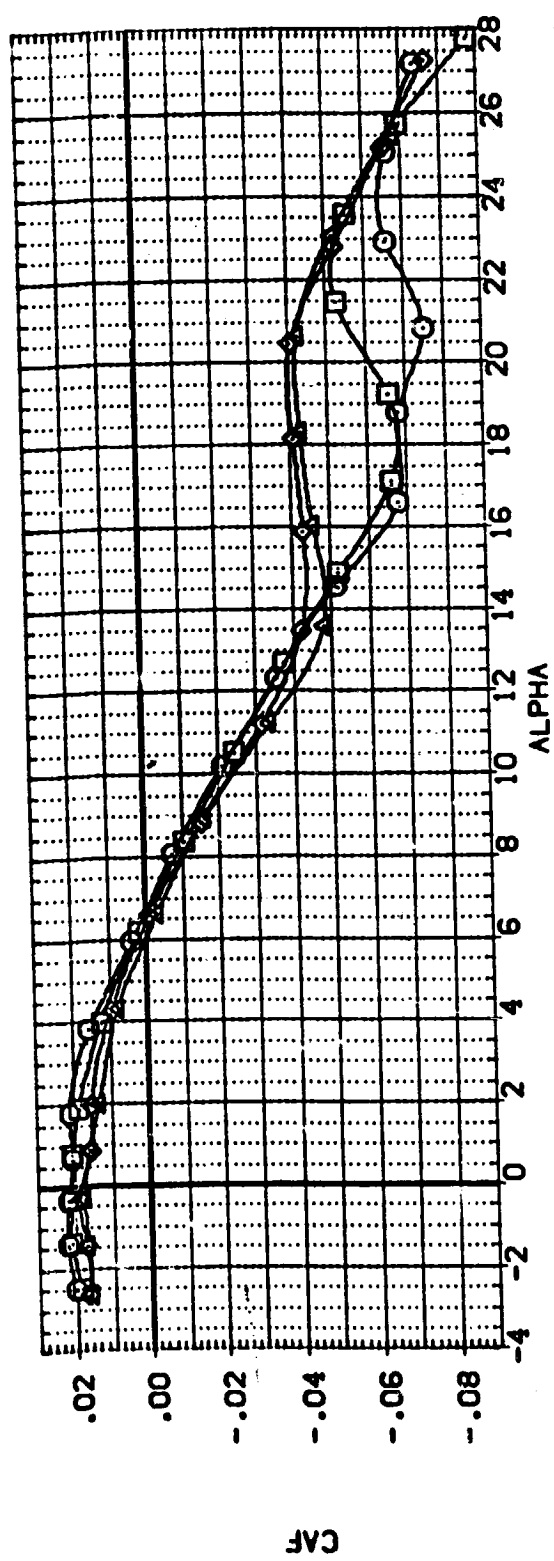


FIGURE 22 089B ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.ORB2A.(B10C5D7F4 M3)(W87E18)(V5R5)(APP026)

SYMBOL	RV/L	PARAMETRIC VALUES				REFERENCE INFORMATION			
		BETA	ELEVTR	AILRON	BOFLAP	SREF	LREF	SO, IN.	
○	2.448	.000	.000	.000	.251	19.9245	14.0502	INCHES	
□	4.757	.000	.000	.000	-14.250	13.1469	.0000	INCHES	
◇	10.266	.000	.000	.000		6.0000	.0150	INCHES	
△	11.988	SPOBRK						INCHES	SCALE

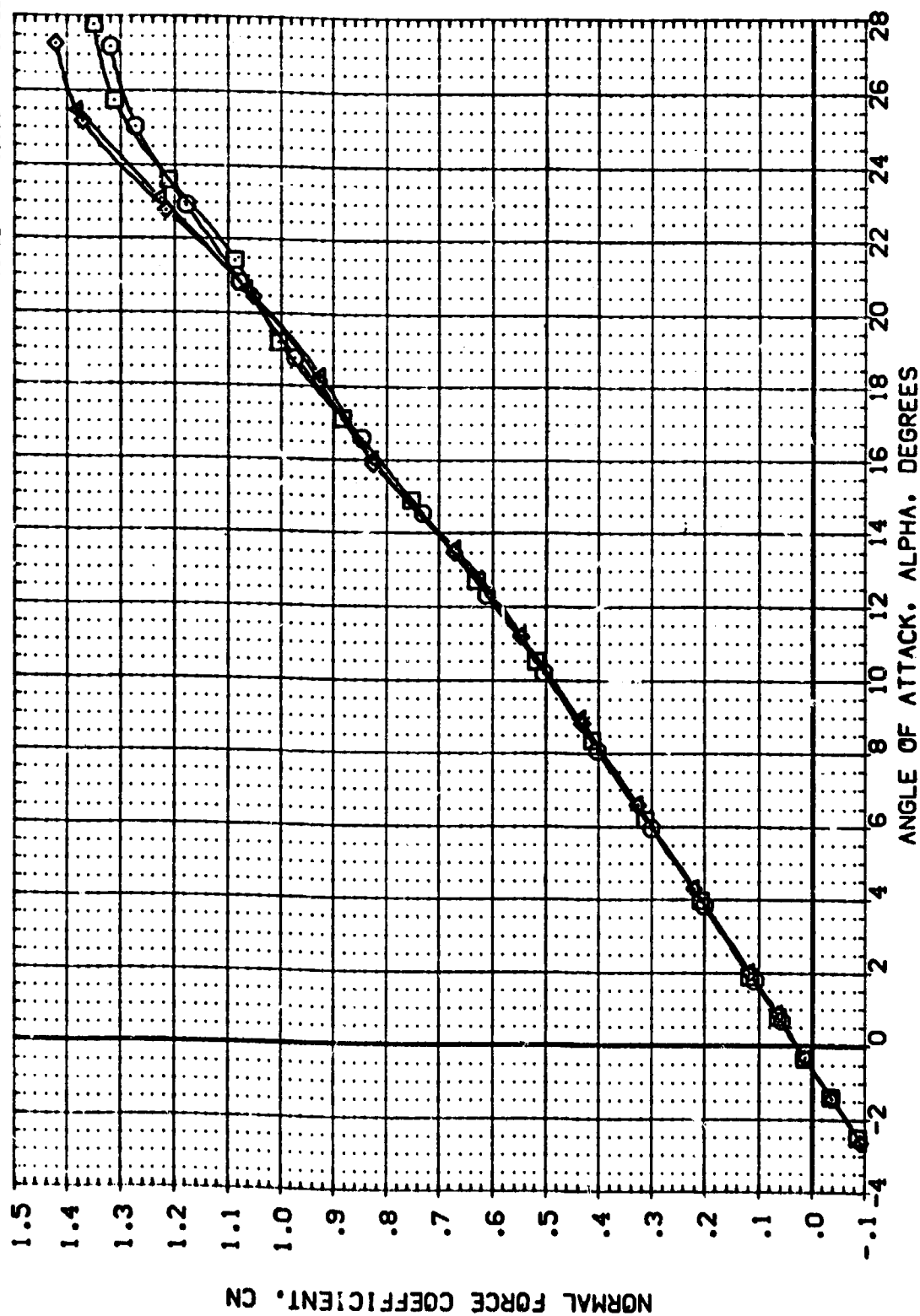


FIGURE 22 089B ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LIPT138.0R82A.(B10C5D7F4 M3)(W87E18)(V5R5)(APP026)

SYMBOL	RV/L	BETA	PARAMETRIC VALUES		REFERENCE INFORMATION	
○	2.448	ELEVTR	.000	MACH	SREF	87.1560
□	4.757	RUDDER	.000	AILRO:	LREF	19.9245
△	10.266	SPDRK	.000	BOFLAP	BREF	14.0502
	11.988				XREF	13.1469
					YREF	.0000
					ZREF	6.0000
					SCALE	.0150

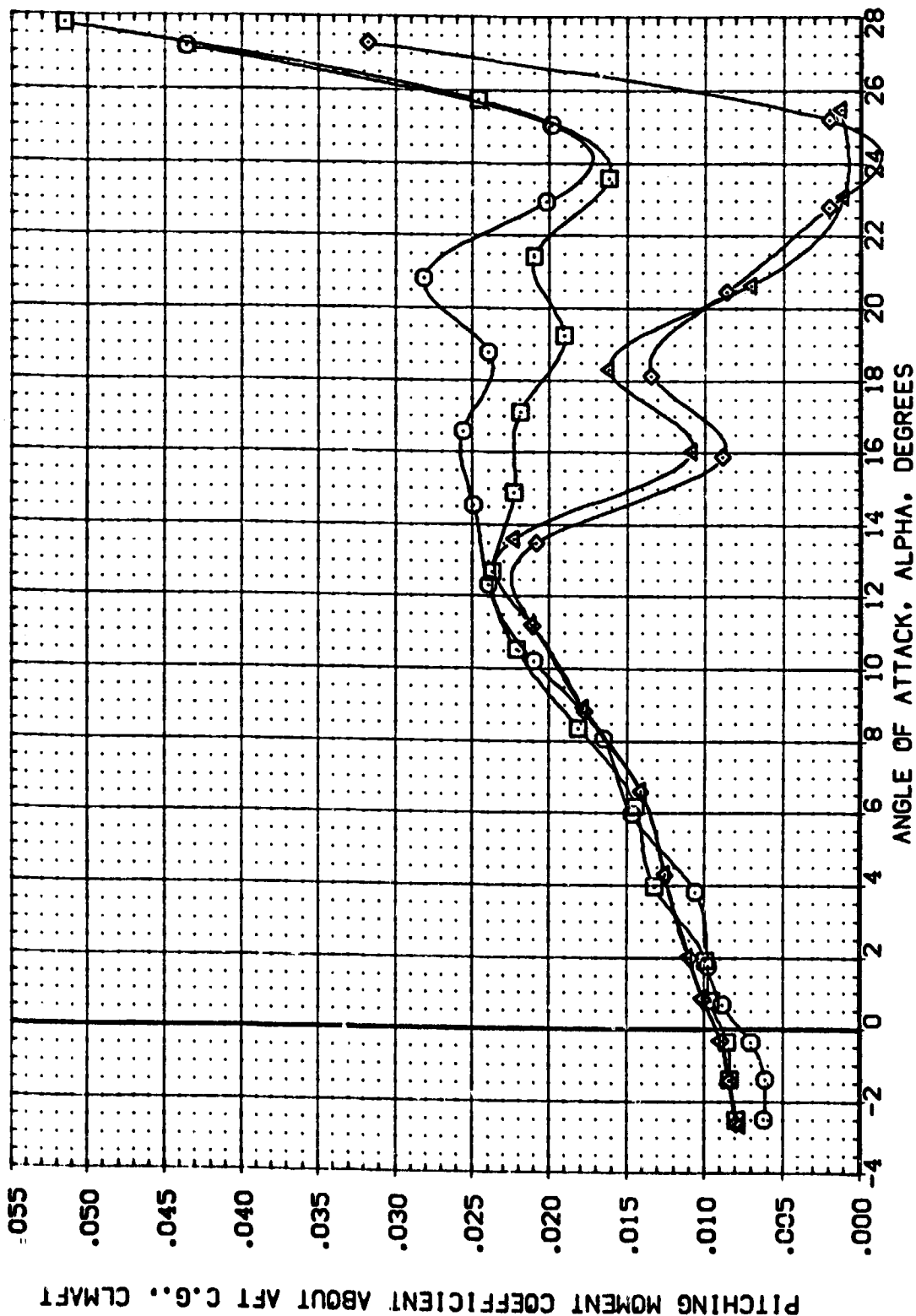


FIGURE 22 089B ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS



0A17.LIPT138.0R82A.(810C5D7F4 M3)(W87E18)(V5R5)(APP026)

SYMBOL	RV/L	PARAMETRIC VALUES				REFERENCE INFORMATION			
		BETA	ELEVTR	MACH		SREF	50. IN.		
○	2.448	.000	.000	.251		LREF	19.9245	INCHES	
□	4.757	.000	.000		AILRON	BREF	14.0502	INCHES	
◇	10.266	.000	.000	-14.250	BDFLAP	XMRP	13.1469	INCHES	
△	11.988	.000	.000			YMRP	6.0000	INCHES	
						ZMRP	6.0000	INCHES	
						SCALE	.0150	SCALE	

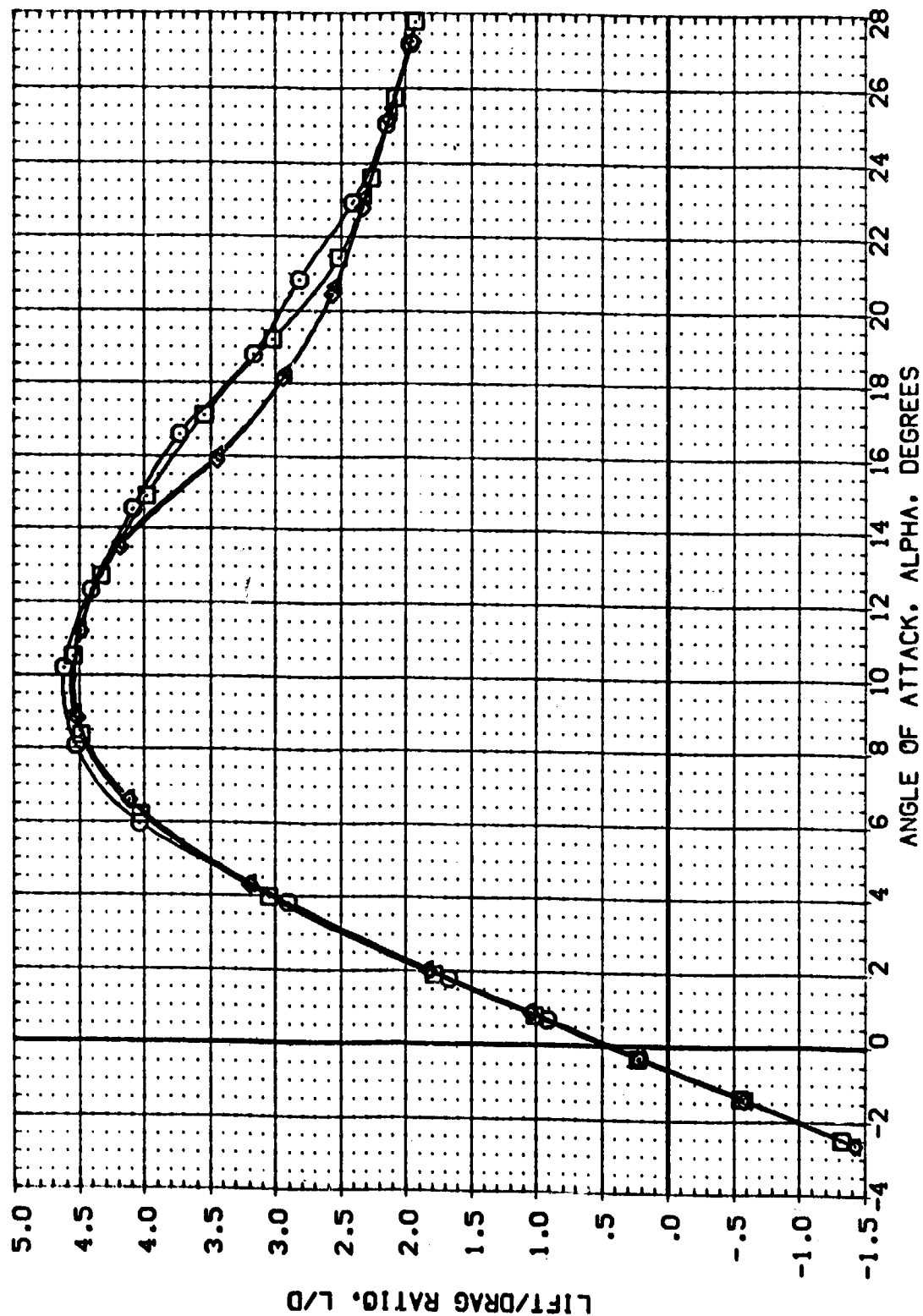


FIGURE 22 089B ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.ORB2A.(B10C5D7F4 M3)(W87E18)(V5R5)(APP026)

SYMBOL		PARAMETRIC VALUES				REFERENCE INFORMATION			
<div> <div>○</div> <div>□</div> <div>◇</div> <div>△</div> </div>	RVL	BETA	MACH	INCH	INCH	SREF	50 IN.	INCH	INCH
	2.448	ELEVTR	.000	.251	.000	1REF	19.9245	INCH	INCH
	4.757	RLOOR	.000	.000	.000	BREF	14.0502	INCH	INCH
	10.266	SPDRK	.000	-14.250	.000	XPRP	13.1469	INCH	INCH
	11.988					YPRP	6.0000	INCH	INCH
						ZPRP	.0150	INCH	INCH
						SCALE			

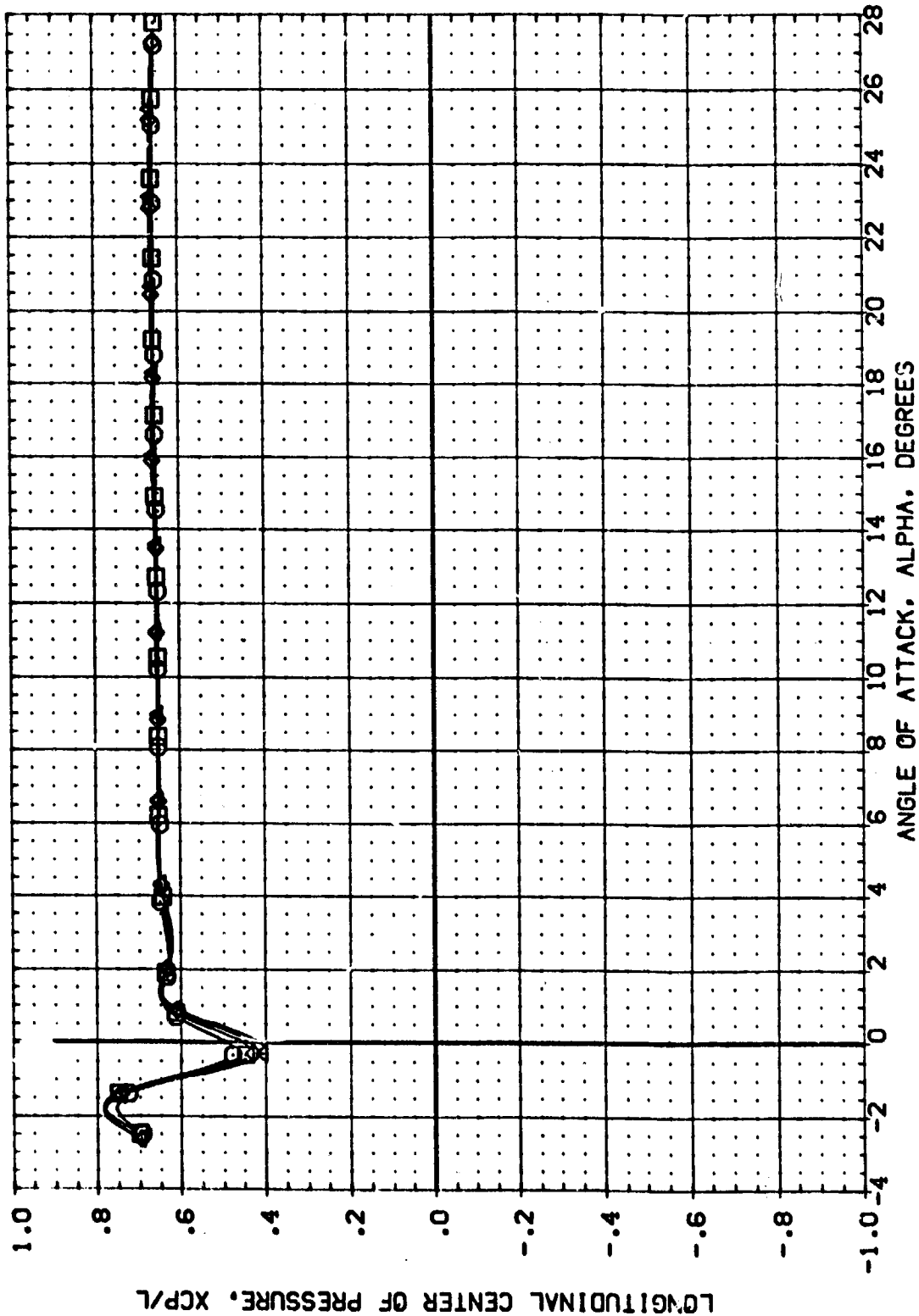


FIGURE 22 089B ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS



0A17.LTPT138.0RB2A.(B10C507F4 M3)(W87E18)(V5R5)(APP026)

SYMBOL	RV/L	BETA	PARAMETRIC VALUES	REFERENCE INFORMATION	SO. IN.
□	2.448	.000	MACH	SREF	87.1560
○	4.757	.000	AILRON	LREF	19.925
△	10.266	.000	BOFLAP	BREF	1.0502
	11.988	.000		YPRP	13.1468
				ZPRP	6.0000
				SCALE	.0150

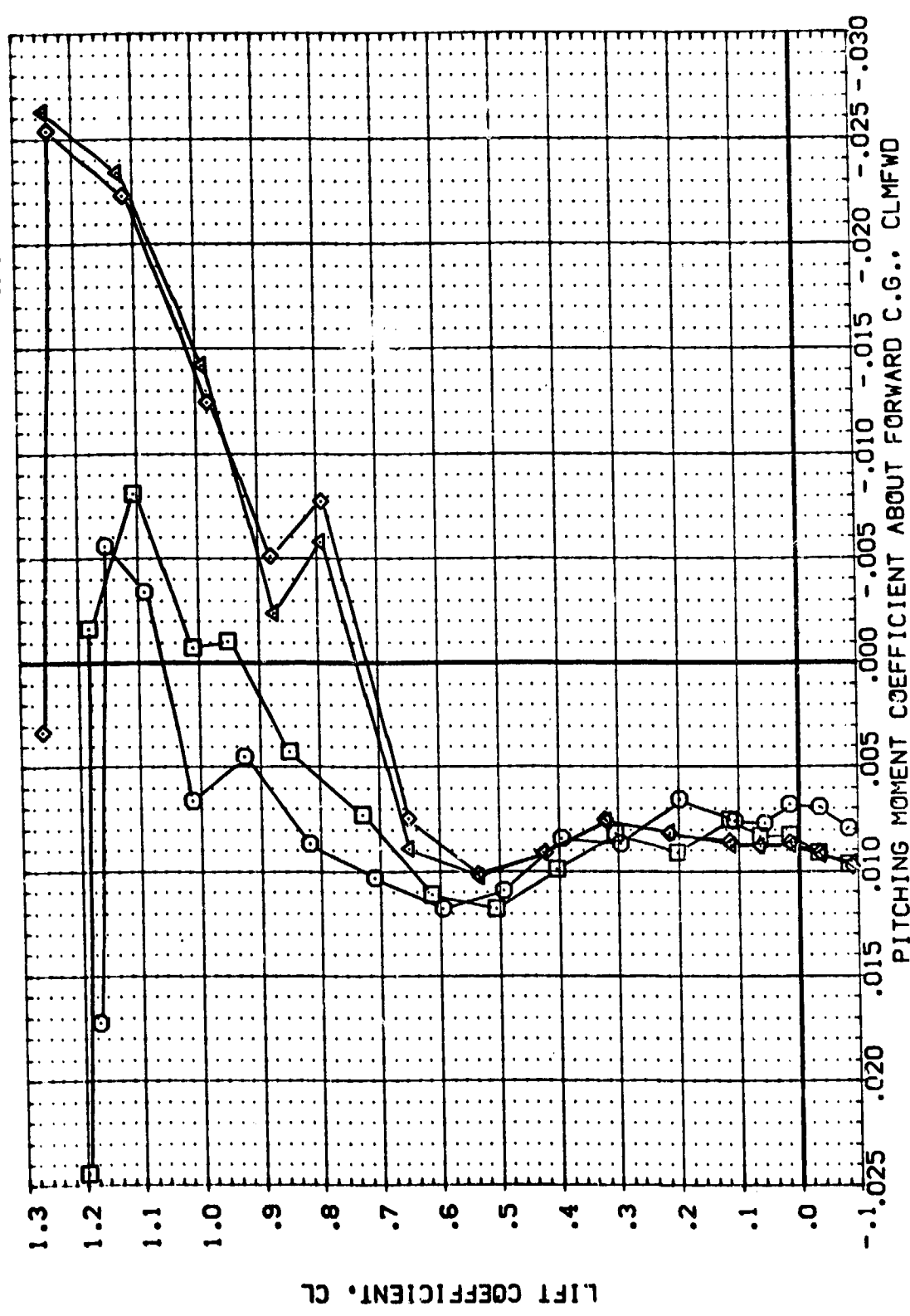


FIGURE 22 089B ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.ORB2A.(B10C5D7F4 M3)(W87E18)(V5R5)(APP026)

SYMBOL	RV/L	BETA	PARAMETRIC VALUES	REFERENCE INFORMATION
○	2.446	ELEVTR	.000 MACH	SREF 87.1560 50.1 IN
□	4.757	ELEVTR	.000 AILRON	LREF 19.3245 INCHES
◇	10.266	RUDDER	.000 EOLAP	BREF 14.0502 INCHES
△	11.988	SPOBRK	.000	XRRP 13.1469 INCHES
			.000	YRRP .0000 INCHES
			.000	ZRRP .0000 INCHES
			.000	SCALE .0150 SCALE

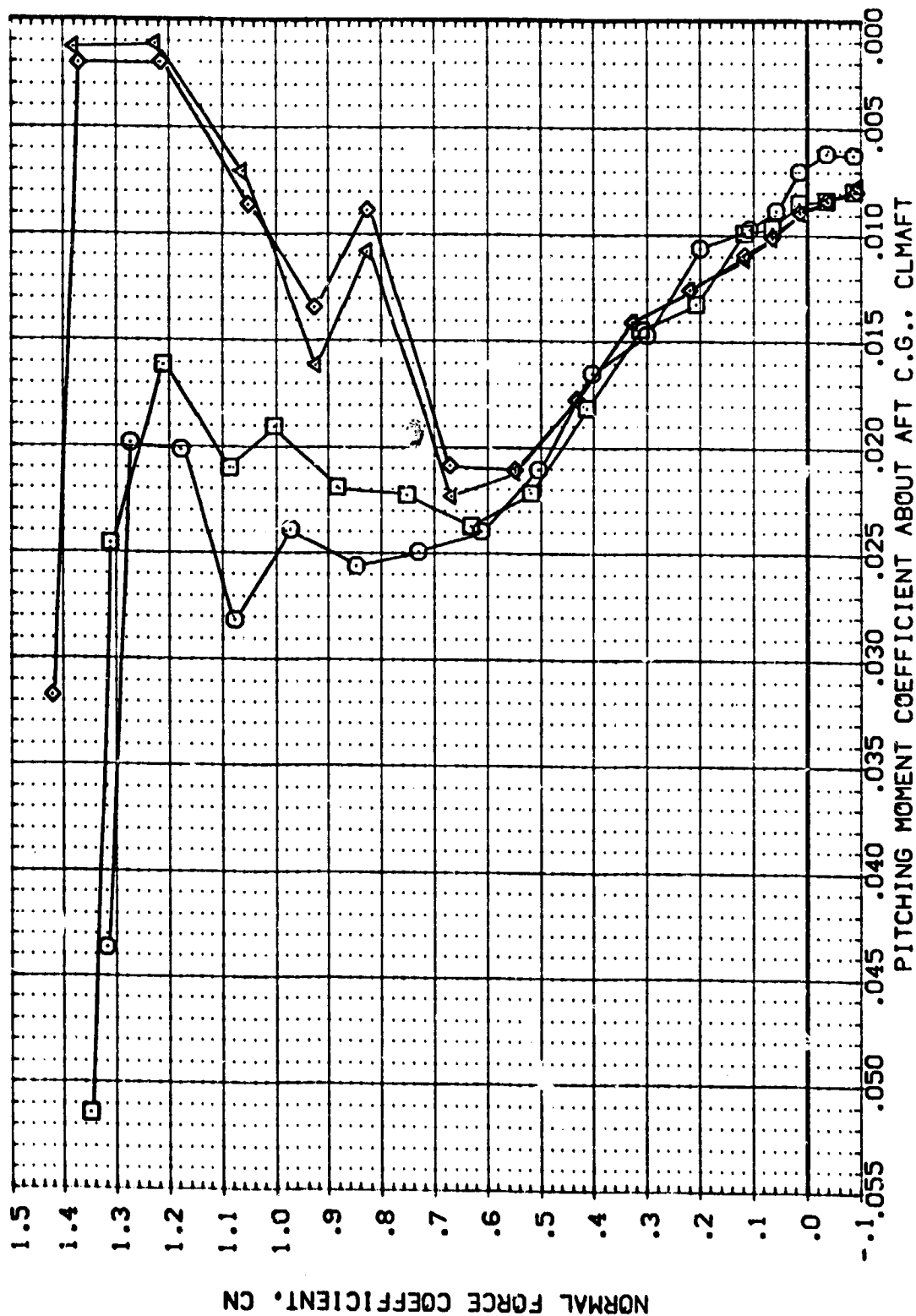


FIGURE 22 0898 ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS



0A17.LTPT138.0R2A.(B10C5D7F4 M3)(W87E18)(V5R5)(APP026)

SYMBOL	RVAL	PARAMETRIC VALUES				REFERENCE INFORMATION			
		BETA	ELEVTR	MACH	.251	SREF	87.1560	50. IN.	
□	2.448	BETA	.000	MACH	.000	LREF	19.3245	INCHES	
◇	4.757	ELEVTR	.000	AIRLON	.000	BREF	14.0502	INCHES	
◇	10.266	RUDER	.000	BOFLAP	-14.250	XTRP	13.1469	INCHES	
△	11.588	SPDRK	.000			YTRP	.0000	INCHES	
						ZTRP	6.0000	INCHES	
						SCALE	.0150	SCALE	

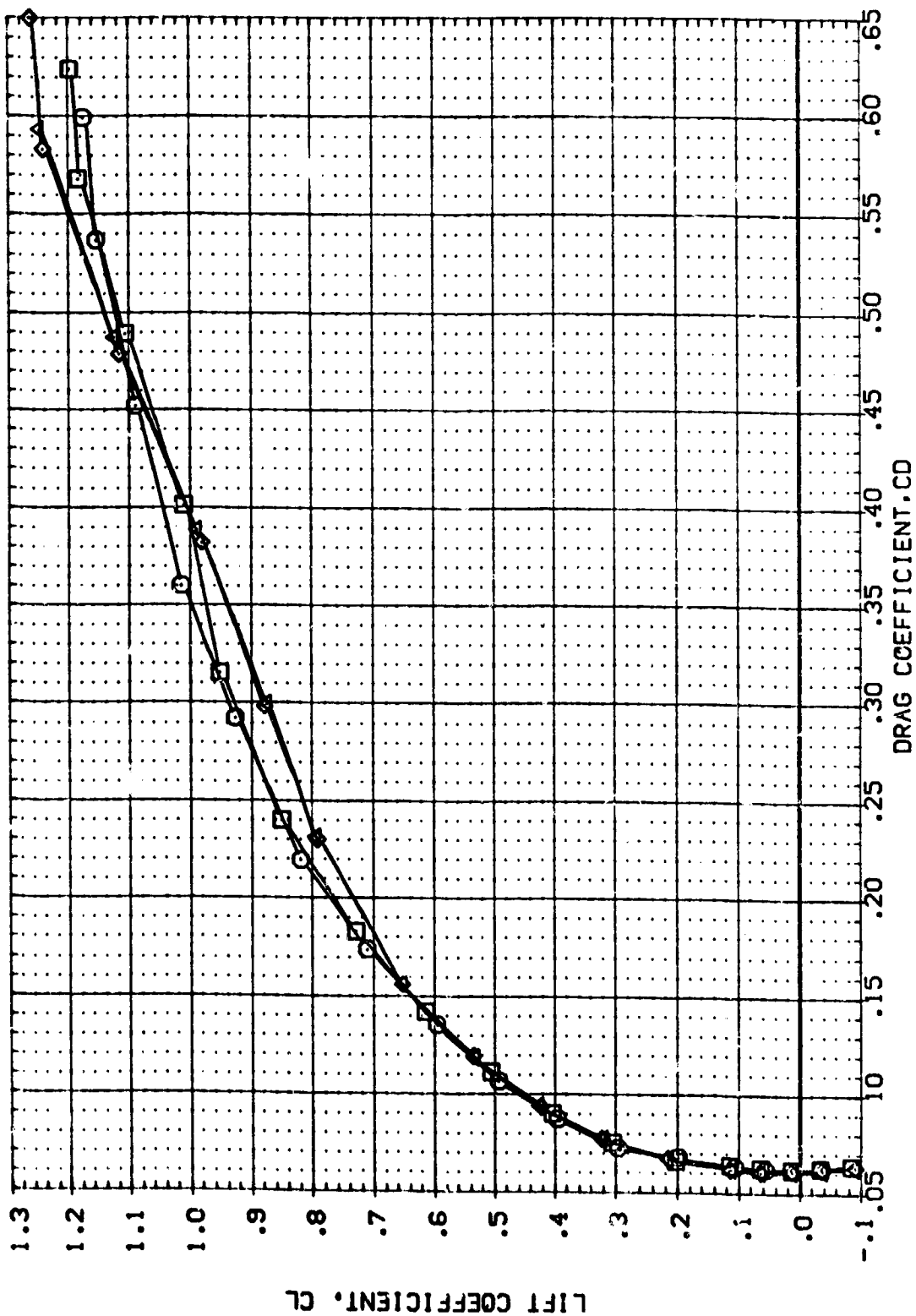


FIGURE 22 089B ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.0R82A.(B10C5D7F4 M3)(W87E18)(V5R5)(RPP026)

SYMBOL	RV/L	PARAMETRIC VALUES				REFERENCE INFORMATION				
		BETA	ELEVTR	RUDER	SPDRK	SREF	LREF	BREF	YREF	ZREF
□	2.448	.000	.000	.000	.000	87.1580	19.8245	14.0502	13.1469	6.0000
◇	4.757	.000	.000	.000	.000	50. IN.	INCHES	INCHES	INCHES	INCHES
△	10.266	.000	.000	.000	.000	6.0000	INCHES	INCHES	INCHES	INCHES
	11.988	.000	.000	.000	.000	.0150	SCALE			

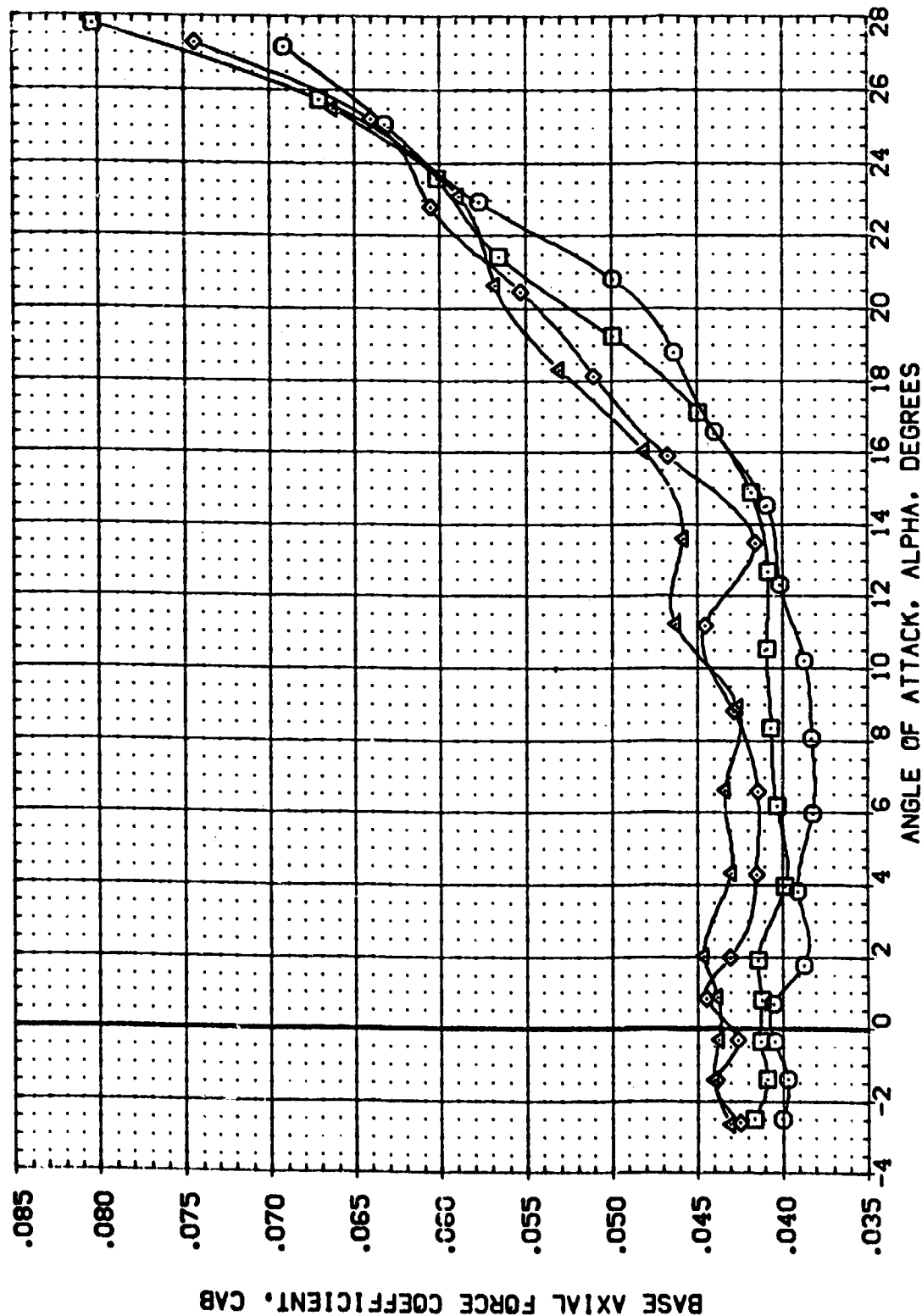


FIGURE 22 089B ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.0RB2A.(B10C5D7F4G1M3)(W87E18)(V5R5)(APP043)

SYMBOL	RV/L	BETA	PARAMETRIC VALUES	
○	2.457	ELEVTR	.000	MACH .243
□	4.830	AILRON	.000	
◇	10.258	RUDDER	.000	-14.250
△	11.761	SPDRBK	24.930	

REFERENCE INFORMATION

SREF	87.1560	50. IN.
LREF	19.9245	INCHES
BREF	14.0502	INCHES
XRRP	13.1469	INCHES
YRRP	.0000	INCHES
ZRRP	6.0000	INCHES
SCALE	.0150	SCALE

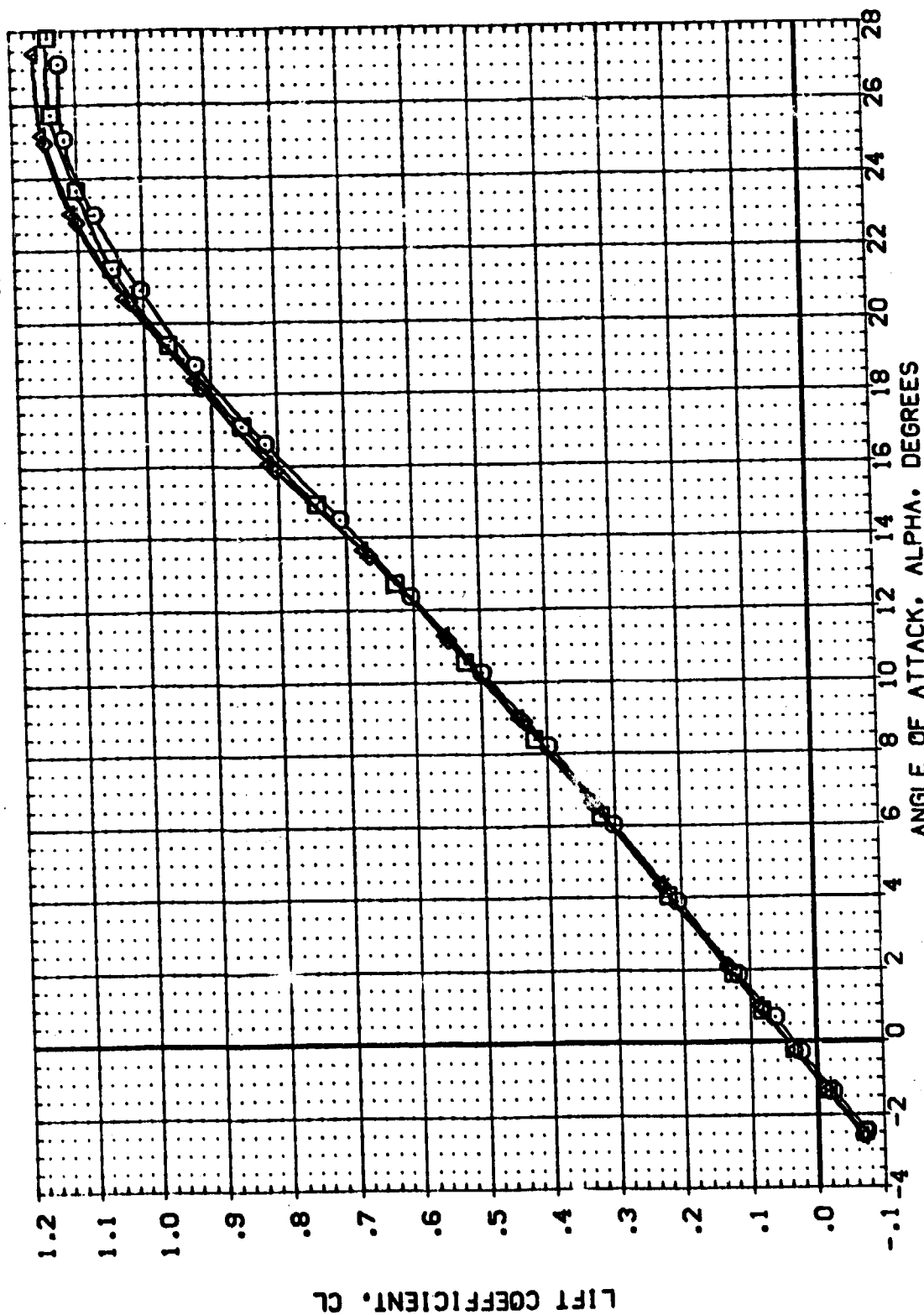


FIGURE 22 089B ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.0R82A.(B10C507F4G1M3)(W87E18)(V5R5)(APP043)

SYMBOL	RV/L	PARAMETRIC VALUES				REFERENCE INFORMATION			
		BETA	MACH	AILRON	BOFLAP	SRPT	SO, IN.	IN-CES	IN-CES
○	2.457	.000	.243			LBPT	19.9245	IN-CES	IN-CES
□	4.830	.000	.000			BRPT	14.0502	IN-CES	IN-CES
◇	16.258	.000	-14.250			XPRP	13.1469	IN-CES	IN-CES
△	11.761	24.920				ZPRP	6.0000	IN-CES	IN-CES
						SCALE	.0150	SCALE	SCALE

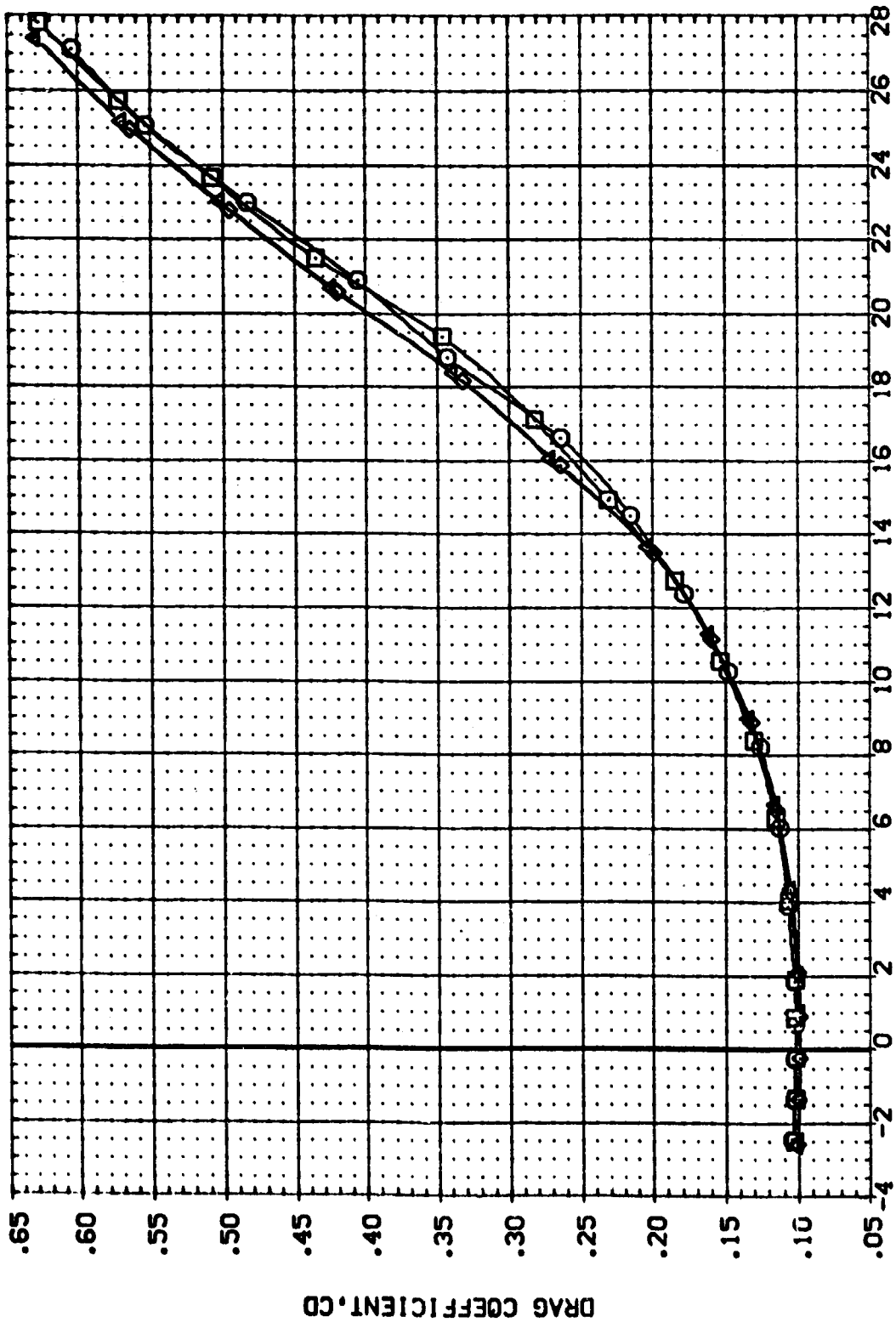


FIGURE 22 0898 ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS



0A17.LTPT138.0R82A.(B10C5D7F4G1M3)(W87E18)(V5R5)(APP043)

SYMBOL	RV/L	PARAMETRIC VALUES				REFERENCE INFORMATION			
		BETA	ELEVTR	MACH	ATLORN	SREF	SO IN.	INCHES	INCHES
□	2.457	.000	.000	.243	.000	19.3245	19.3245	INCHES	INCHES
◇	4.830	.000	.000	.000	.000	14.0502	14.0502	INCHES	INCHES
△	10.258	.000	.000	-14.250	.000	13.1469	13.1469	INCHES	INCHES
	11.761	SPDRK	24.920			6.0000	6.0000	INCHES	INCHES
						SCALE	.0150	SCALE	

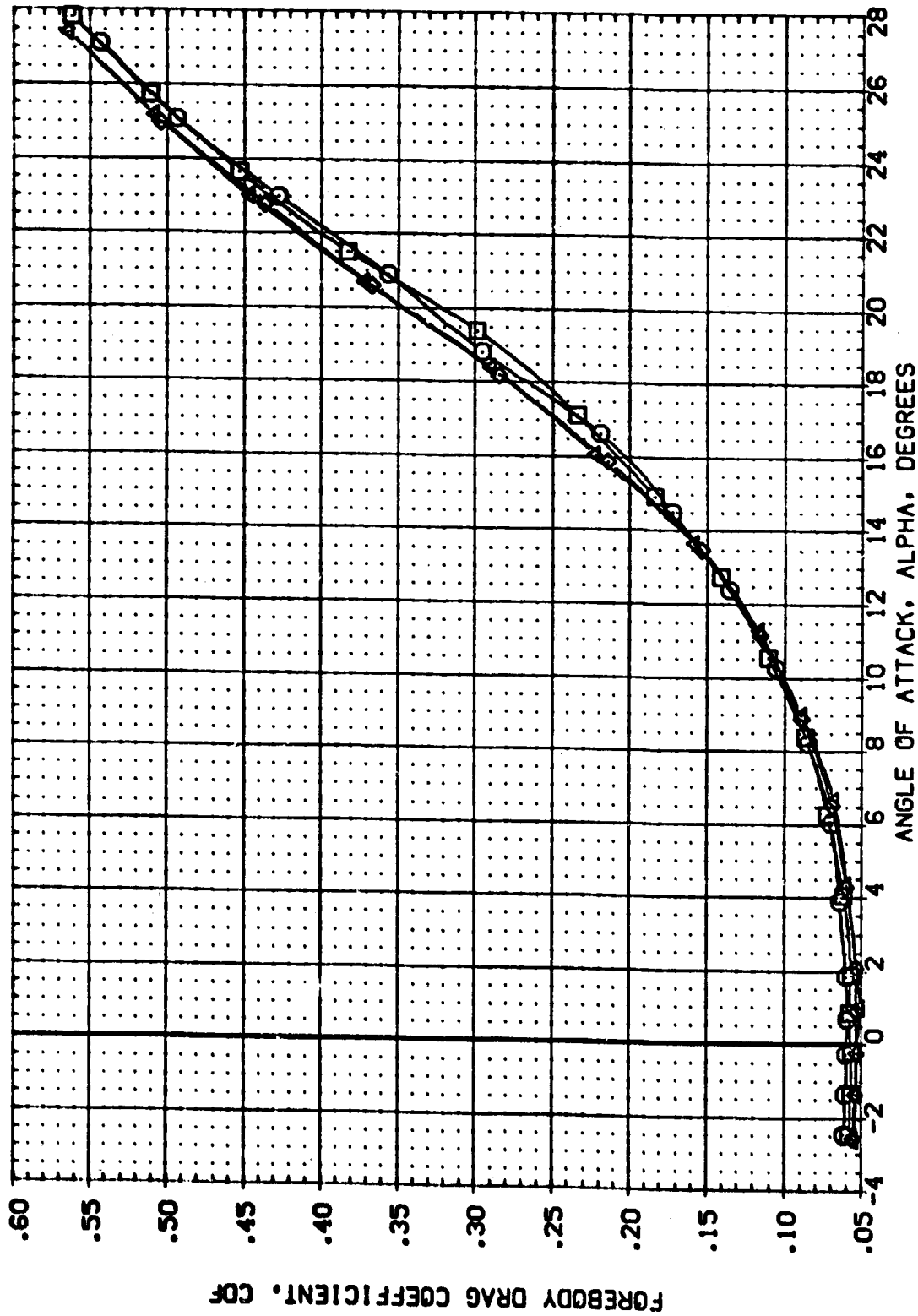


FIGURE 22 0898 ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.0R82A.(B10C5D7F4G1M3)(W87E18)(V5R5)(APP043)

SYMBOL	RV/L	BETA	ELEVTR	RUDDER	SPOBRK	PARAMETRIC VALUES	REF	INCHES	SCALE
○	2.457	.000	.000	.000	.000	MACH	87.1560	50.14	INCHES
□	4.830	.000	.000	.000	.000	AILRON	19.9245	19.9245	INCHES
◇	10.258	.000	.000	.000	.000	BOFLAP	14.0502	14.0502	INCHES
△	11.761	.000	.000	.000	.000	BOFLAP	13.1469	13.1469	INCHES
						SCALE	6.0000	6.0000	INCHES
						SCALE	.0150	.0150	SCALE

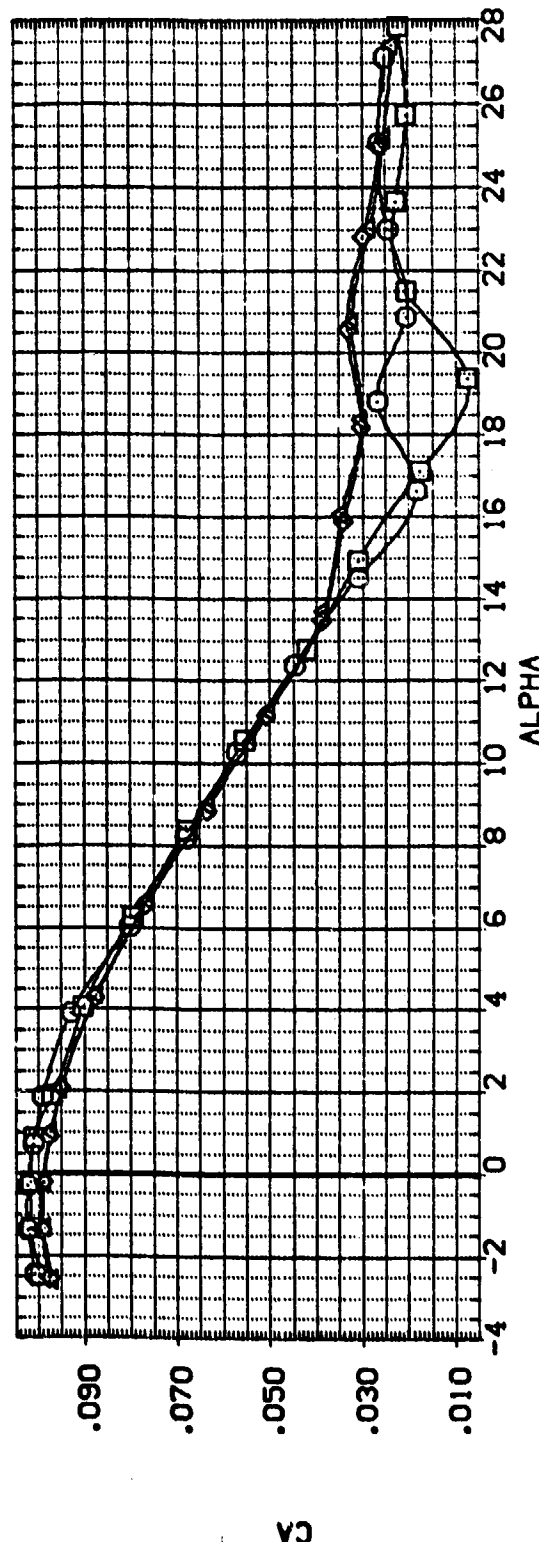
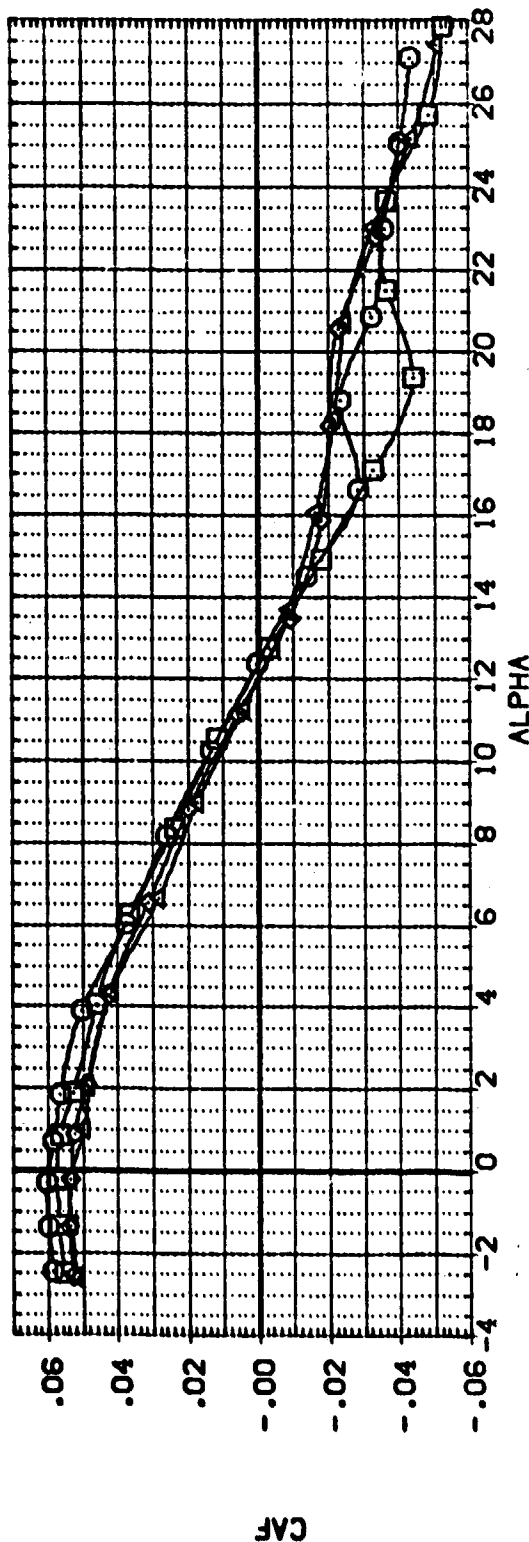


FIGURE 22 0898 ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS



0A17.LTPT138.0R82A.(B10C5D7F4G1M3)(W87E18)(V5R5)(APP043)

SYMBOL	RVL	PARAMETRIC VALUES				REFERENCE INFORMATION			
		BETA	MACH	AILRON	BOFLAP	SREF	LREF	BREF	YMRP
○	2.457	.000	.000	.000	.243	87.1550	19.9245	14.0502	13.1469
□	4.830	.000	.000	.000	-14.250	19.9245	14.0502	13.1469	13.1469
◇	10.258	.000	.000	.000		6.0000	6.0000	6.0000	6.0000
△	11.761	SPDBRK	24.920			6.0000	6.0000	6.0000	6.0000
						SCALE	SCALE	SCALE	SCALE
									.0150

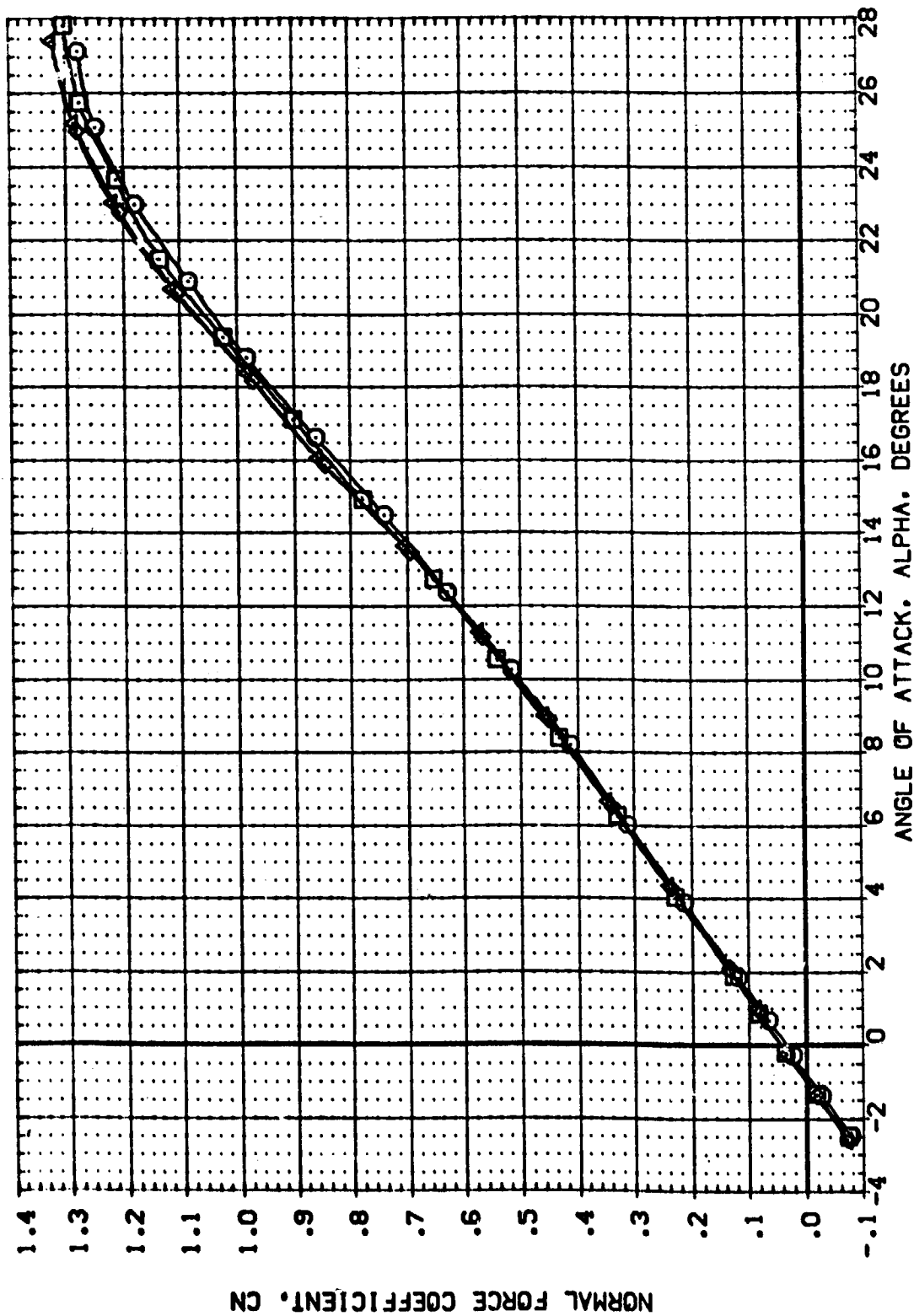


FIGURE 22 089B ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.0RB2A.(B10C5D7F4G1M3)(W87E18)(V5R5)(APP043)

SYMBOL		PARAMETRIC VALUES		REFERENCE INFORMATION	
○	RM/L	BETA	MACH	SREF	50. IN.
□		ELEVTR	AILRON	LREF	INCHES
◇		RLODR	BDFLAP	BREF	INCHES
△		SPDRK		XREF	INCHES
				YREF	INCHES
				ZREF	INCHES
				SCALE	SCALE

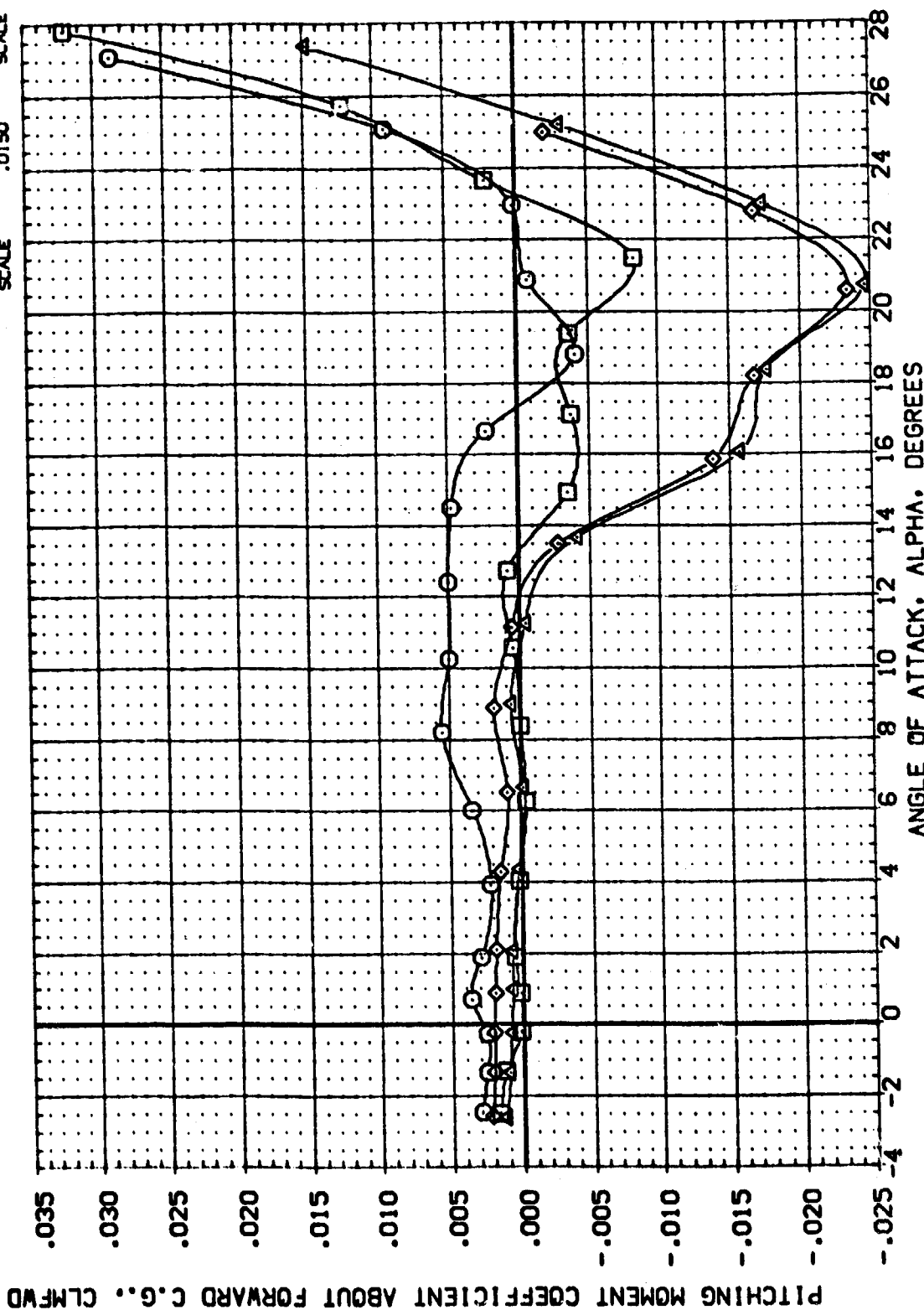


FIGURE 22 089B ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS



0A17.LIPT138.0R82A.(B10C507F4G1M3)(W87E18)(V5R5)(APP043)

SYMBOL	RWL	PARAMETRIC VALUES				REFERENCE INFORMATION			
		BETA	MACH	NOSE	SCALE	REF	NOSE	NOSE	SCALE
○	2.457	.000	.243	NOSE		87.1560	NOSE	NOSE	
□	4.830	.000	.000	AILRON		19.9245	NOSE	NOSE	
△	10.258	.000	-14.250	BOFLAP		14.0502	NOSE	NOSE	
◇	11.761	.000		BOFLAP		13.1469	NOSE	NOSE	
		24.920				6.0000	NOSE	NOSE	
						.0150	NOSE	NOSE	

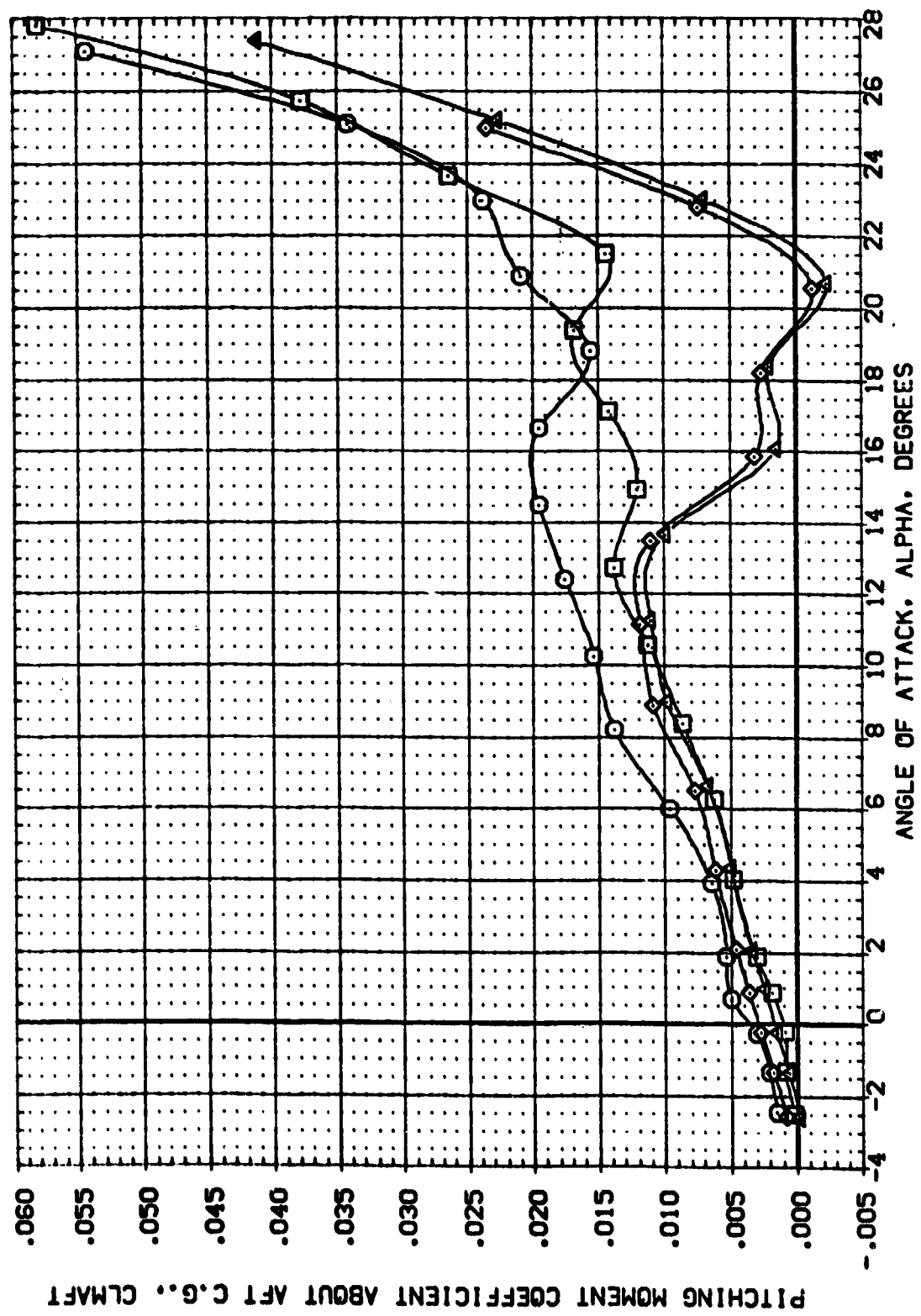


FIGURE 22 0898 ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.0R82A.(B10C507F461M3)(W87E18)(V5R5)(APP043)

PARAMETRIC VALUES			
SYMBOL	NUM	BETA	MACH
○	2.457	.000	.243
□	4.800	.000	.000
◇	10.258	.000	-14.250
△	11.761	24.920	

REFERENCE INFORMATION			
SNR	87.1580	50. IN.	
LRST	19.5243	INCHES	
BRST	14.0502	INCHES	
WASP	13.1468	INCHES	
YRSP	.0000	INCHES	
ZRSP	6.0000	INCHES	
SCALE	.0150	SCALE	

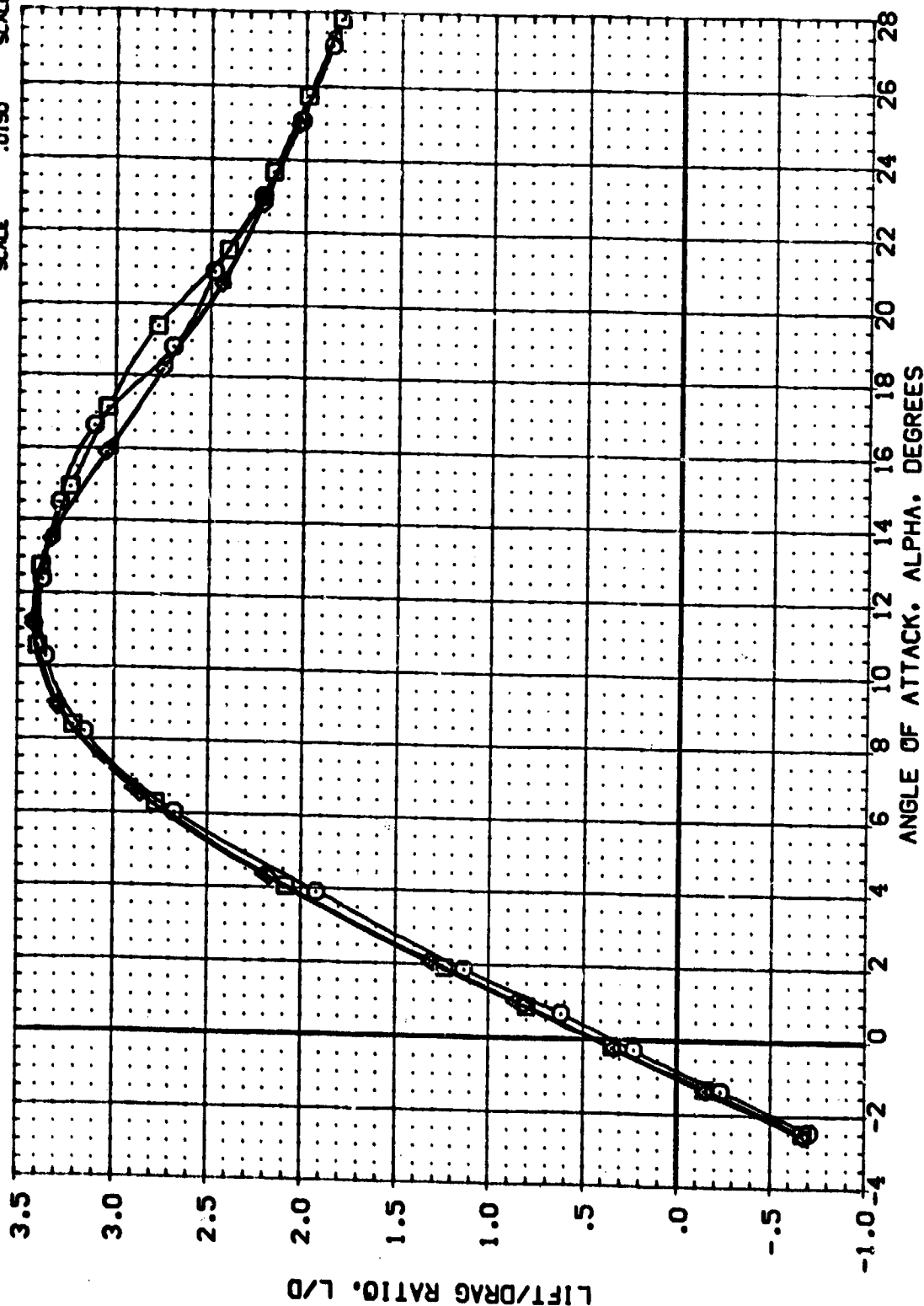


FIGURE 22 0898 ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS



0A17.LTPT138.0R82A.(B10C507F4G1M3)(W87E18)(V5R5)(APP043)

SYMBOL		PARAMETRIC VALUES				REFERENCE INFORMATION			
□	RN/L	BETA	MACH	AILRON	BOFLAP	SREF	67.1560	SO.IN.	INCHES
□	4.830	ELEVTR	.000	.000	.000	LREF	19.9245	INCHES	INCHES
◇	10.258	RLODR	.000	.000	-14.250	BREF	14.0502	INCHES	INCHES
△	11.761	SPDBRK	24.920			XREF	13.1469	INCHES	INCHES
						YREF	.0000	INCHES	INCHES
						ZREF	.0000	INCHES	INCHES
						SCALE	.0150	SCALE	

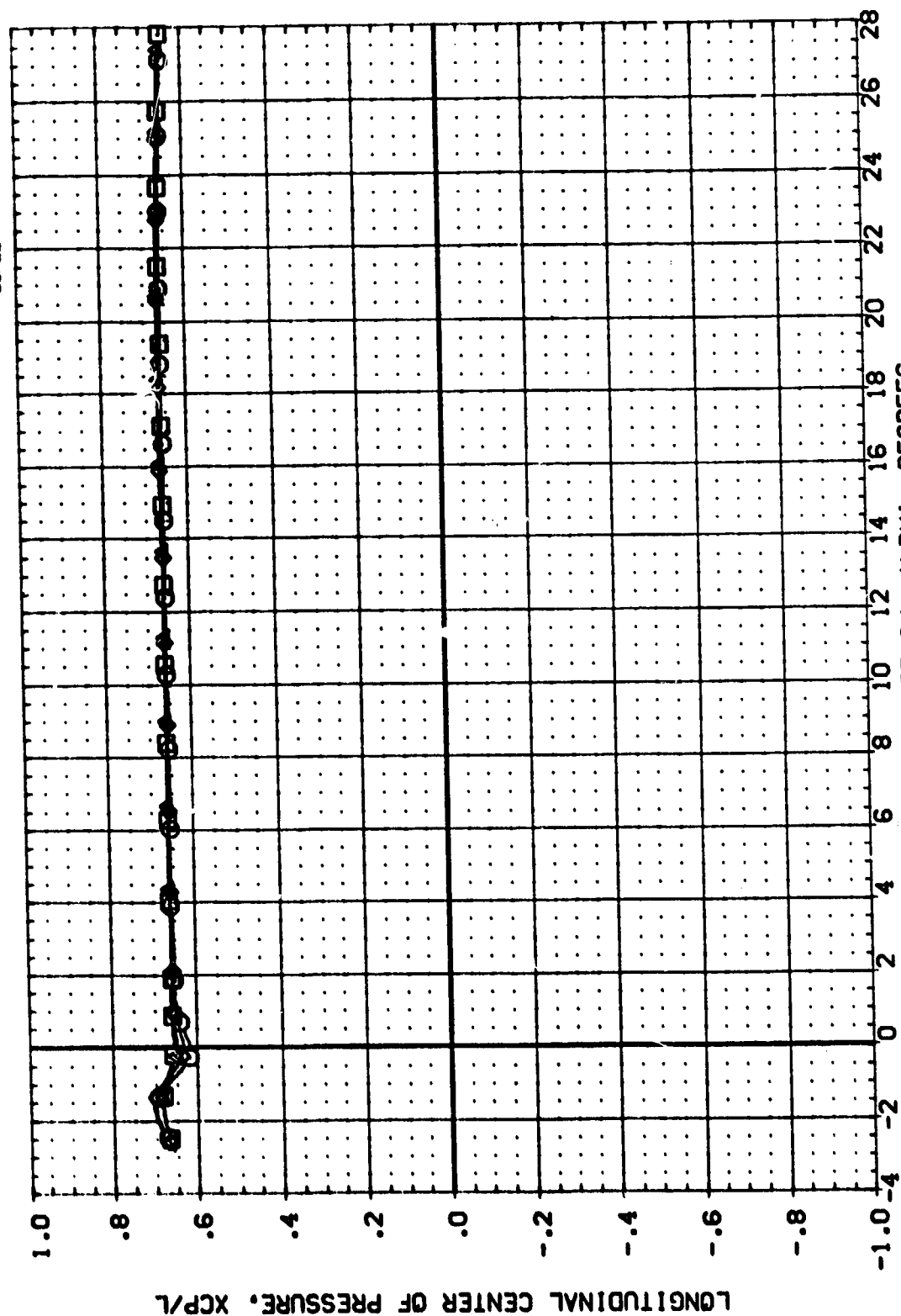
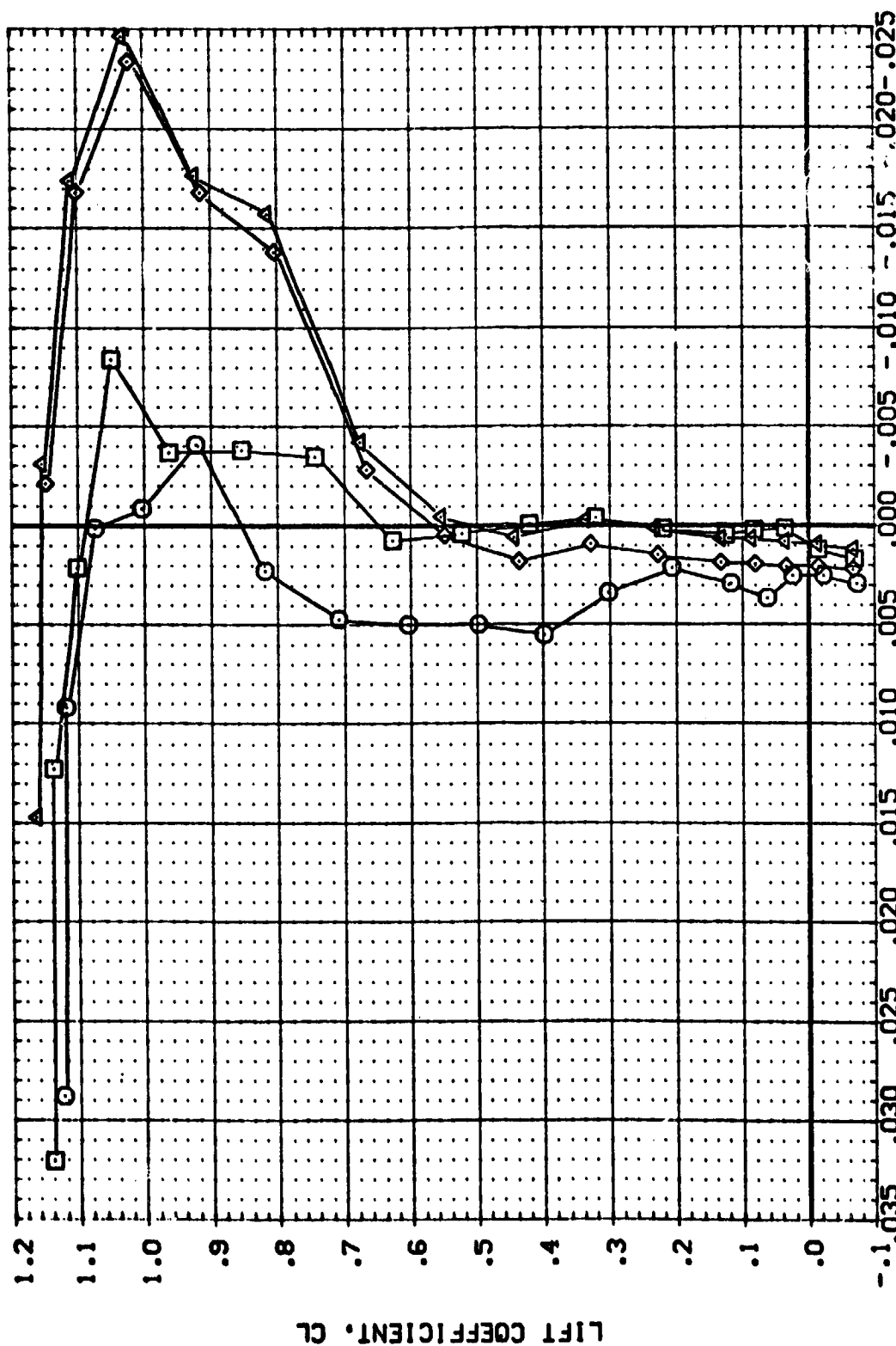


FIGURE 22 089B ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.ORB2A.(B10C507F4G1M3)(W87E18)(V5R5)(APP043)

SYMBOL	PARAMETRIC VALUES				REFERENCE INFORMATION			
	ANAL	BETA	MACH	SCALE	SREF	90 IN.	INCHES	SCALE
○	2.457	.000	.243		LREF	19.9245	INCHES	
□	4.830	.000	.000		BREF	14.0502	INCHES	
◇	10.258	.000	-14.250		XREF	13.1469	INCHES	
△	11.761	24.920			YREF	6.0000	INCHES	
					ZREF	6.0000	INCHES	
					SCALE	.0150	SCALE	



PITCHING MOMENT COEFFICIENT ABOUT FORWARD C.G.: CM,FWD

FIGURE 22 089B ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS



0A17.LTPT138.0R82A.(B10C5D7F4G1M3)(W87E1E)(V5R5)(APP043)

SYMBOL		PARAMETRIC VALUES		REFERENCE INFORMATION	
□	RN/L	BETA	MACH	SREF	87.1560
		ELEVTR	AILRON	LREF	19.9245
		RUDDER	BDFLAP	BREF	14.0502
		SPOBRK		XRRP	13.1469
◇				YRRP	.0000
△				ZRRP	6.0000
				SCALE	.0150

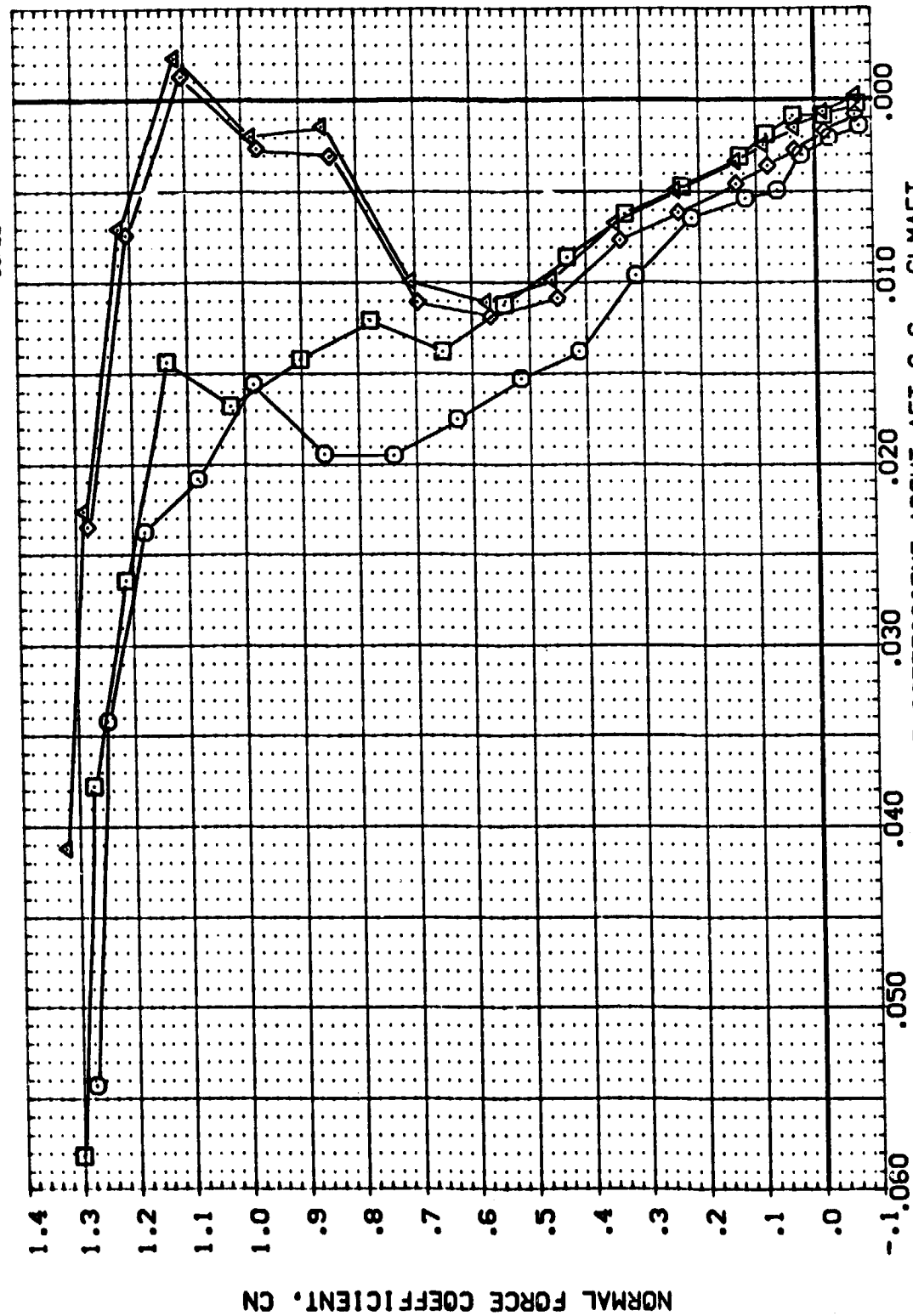


FIGURE 22 089B ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

0A17.LTPT138.0RB2A.(B10C5D7F4G1M3)(W87E18)(V5R5)(APP043)

SYMBOL	RV/L	BETA	PARAMETRIC VALUES	
□	2.457	ELEVTR	.000	MACH .243
◇	4.800	RUDDER	.000	AILRON .000
△	10.258	SPOBRK	.000	BDFLAP -14.250
	11.761		24.920	

REFERENCE INFORMATION

SREF	87.1580	SO, IN.
LREF	19.9245	INCHES
BREF	14.0502	INCHES
XTRP	13.1469	INCHES
YTRP	.0000	INCHES
ZTRP	6.0000	INCHES
SCALE	.0150	SCALE

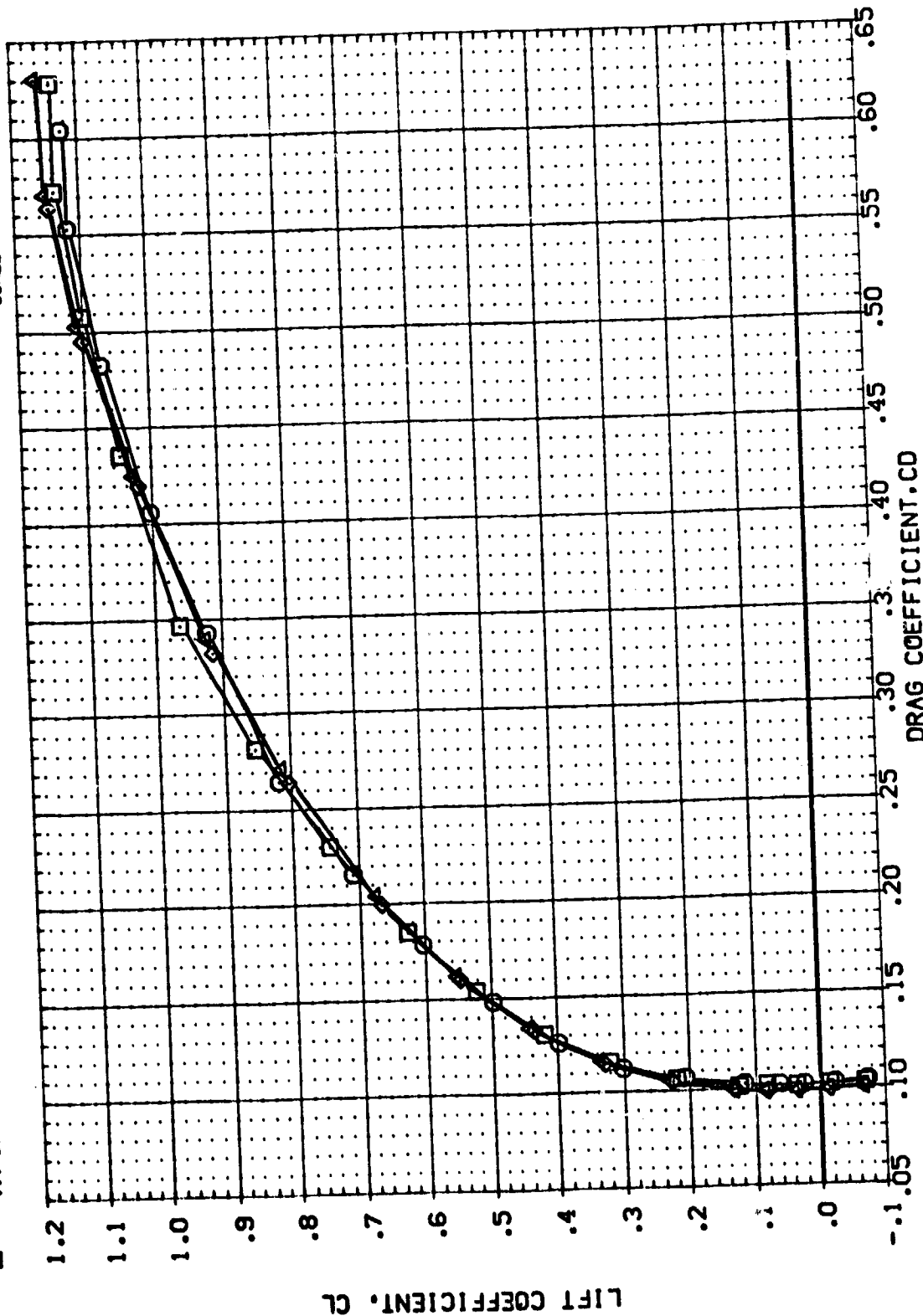


FIGURE 22 089B ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS



0A17.LTPT138.ORB2A.(B10C507F4G1M3)(W87E18)(V5R5)(RPP043)

SYMBOL		PARAMETRIC VALUES		REFERENCE INFORMATION	
○	RV/L	BETA	MACH	SREF	SQ. IN.
□	4.830	ELEVTR	.000	LREF	INCHES
◇	10.258	RUDER	.000	BREF	INCHES
△	11.761	SPDRK	-14.250	XPRP	INCHES
			24.920	YPRP	INCHES
				ZPRP	INCHES
				SCALE	.0150

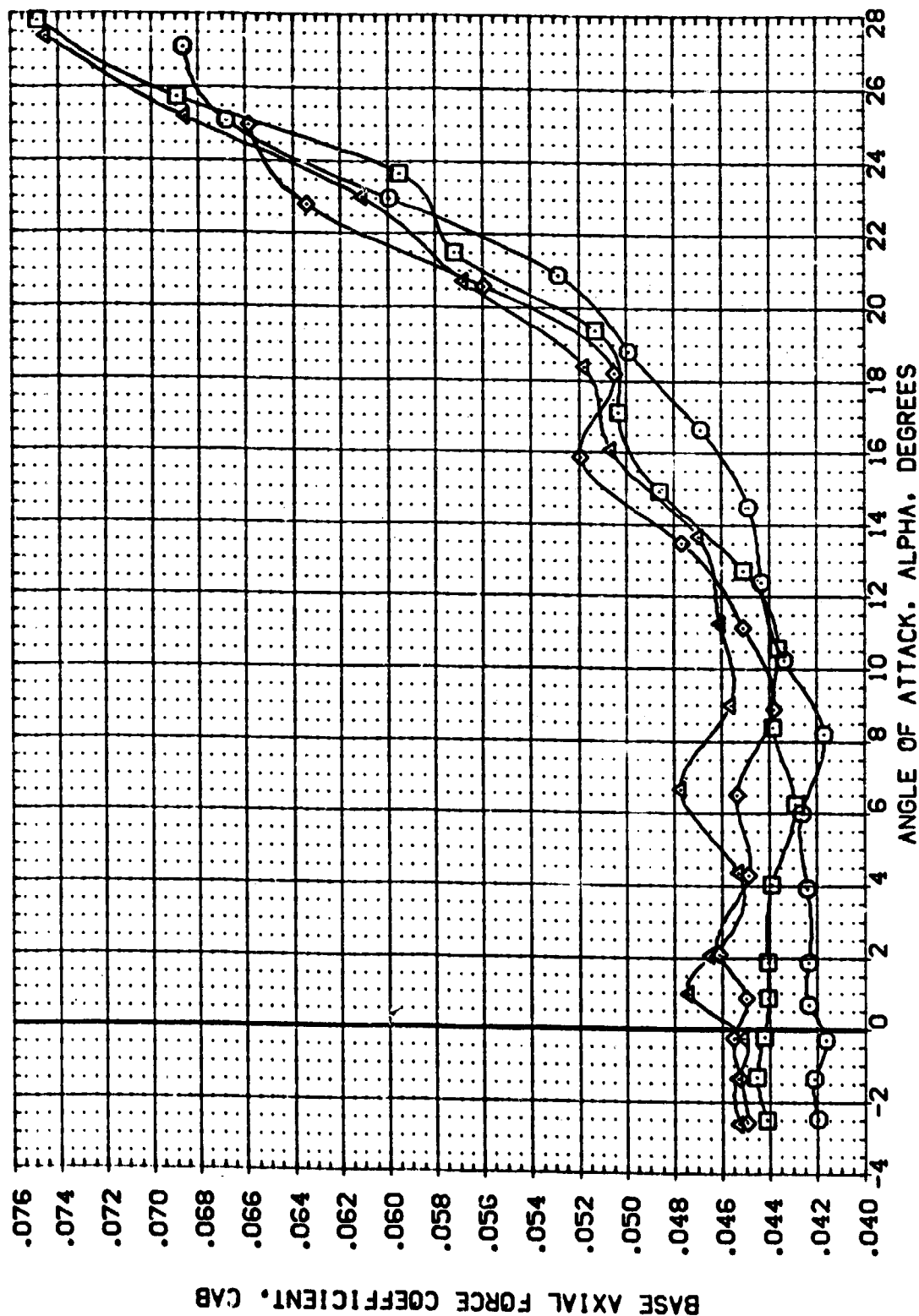


FIGURE 22 089B ORBITER TOTAL VEHICLE LONGITUDINAL CHARACTERISTICS

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	HO (V87E18) (V5RS)	ELEVTR	BOFLAP	SP08RK	RUDER	REFERENCE INFORMATION
(APP027)	CA17.LTPT138.CRB2A.(B10C50TF4	HO (V87E18) (V5RS)	.000	-14.250	24.920	.000	SREF 87.1560
(APP032)	CA17.LTPT138.CRB2A.(B10C50TF4	HO (V87E18) (V5RS)	-5.000	-14.250	24.920	.000	LREF 19.5245
(APP036)	CA17.LTPT138.CRB2A.(B10C50TF4	HO (V87E18) (V5RS)	-9.400	-14.250	24.920	.000	NC-ES 14.0502
(APP035)	CA17.LTPT138.CRB2A.(B10C50TF4	HO (V87E18) (V5RS)	-19.200	-14.250	24.920	.000	YREF 13.1469
(APP038)	CA17.LTPT138.CRB2A.(B10C50TF4	HO (V87E18) (V5RS)	-24.500	-14.250	24.920	.000	ZREF 6.0000
							SCALE .0150

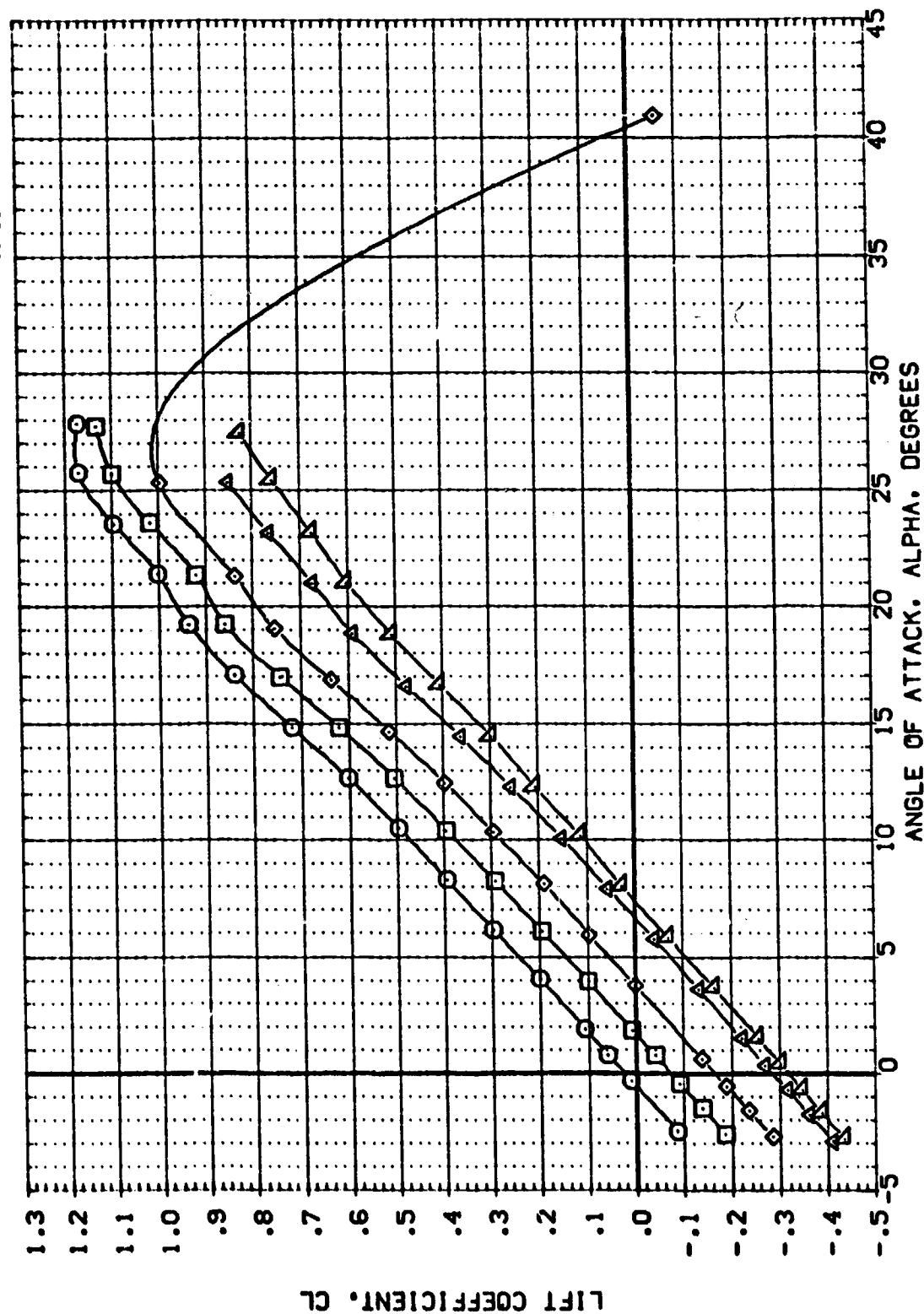


FIGURE 23 089B ORBITER ELEVON DEFLECTION EFFECTS (NEGATIVE DEFLECTIONS)

(A)RN/L = 4.70



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BD FLAP	SPDRBK	RUDER	REFERENCE INFORMATION	SO. IN.
(APC27)	CA17, LPT1, 38, CRB2A, (B1OC507F4	.000	-14.250	24.920	.000	SREF	97.1560
(APC32)	CA17, LPT1, 38, CRB2A, (B1OC507F4	-5.080	-14.250	24.920	.000	LREF	19.9245
(APC36)	CA17, LPT1, 38, CRB2A, (B1OC507F4	-9.400	-14.250	24.920	.000	BREF	14.0502
(APC35)	CA17, LPT1, 38, CRB2A, (B1OC507F4	-19.200	-14.250	24.920	.000	XREF	13.1459
(APC38)	CA17, LPT1, 38, CRB2A, (B1OC507F4	-24.500	-14.250	24.920	.000	YREF	6.0000
						ZREF	6.0000
						SCALE	.0150

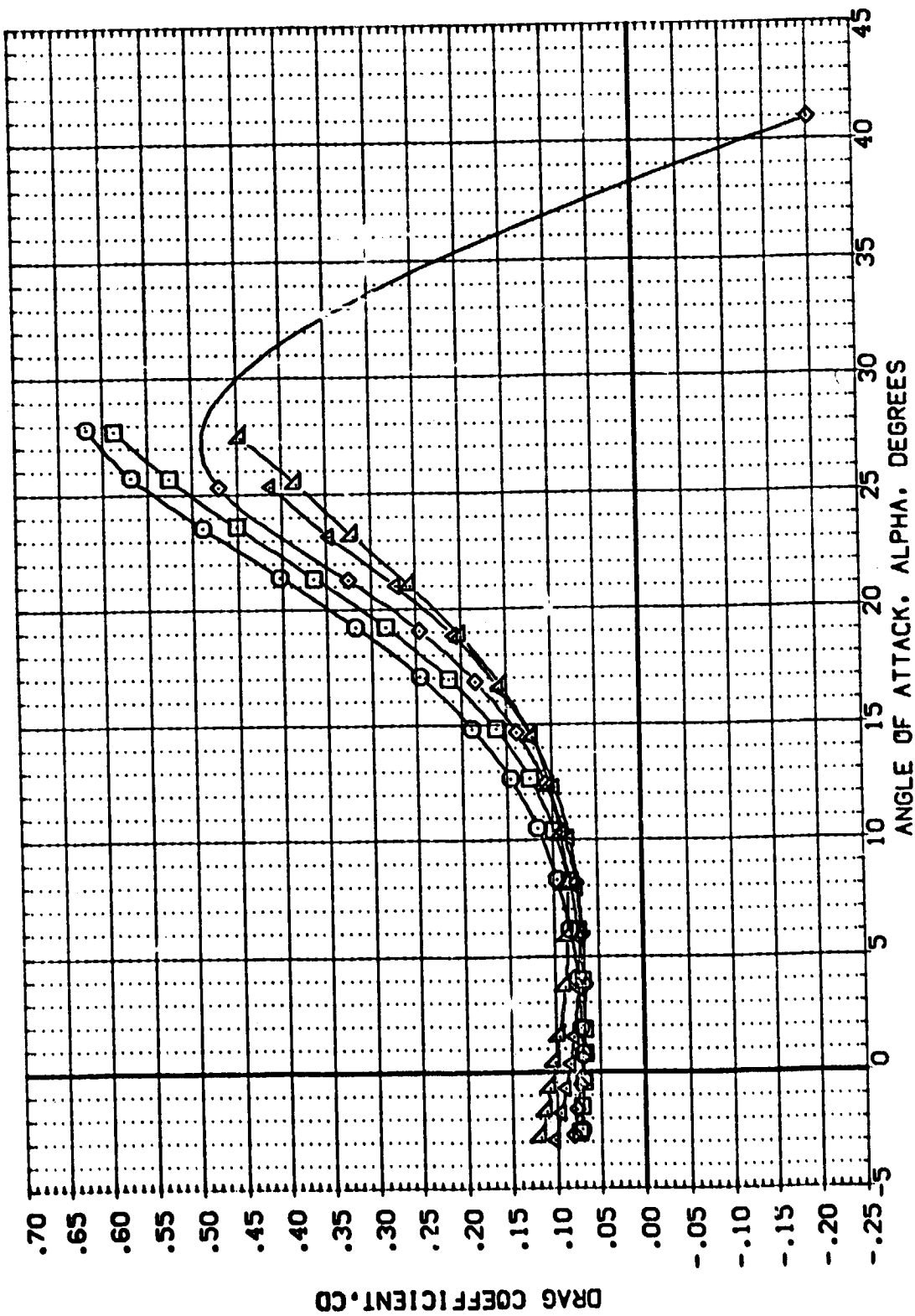


FIGURE 23 ORBITER ELEVON DEFLECTION EFFECTS (NEGATIVE DEFLECTIONS)

(A)RN/L = 4.70

DATA SET SYMBL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RLOODR	REFERENCE INFORMATION
(APPC27)	DA17.LTPT 38.0RB2A.(810C507F4	.000	-14.250	24.920	.000	SREF 87.1560 SQ.IN.
(APPC32)	DA17.LTPT 38.0RB2A.(810C507F4	-5.080	-14.250	24.920	.000	LREF 19.9245 INCHES
(APPC36)	DA17.LTPT 38.0RB2A.(810C507F4	-9.400	-14.250	24.920	.000	BREF 14.0502 INCHES
(APPC35)	DA17.LTPT 38.0RB2A.(810C507F4	-19.200	-14.250	24.920	.000	YREF 13.1459 INCHES
(APPC38)	DA17.LTPT 38.0RB2A.(810C507F4	-24.500	-14.250	24.920	.000	ZREF 6.0000 INCHES
						SCALE .0150

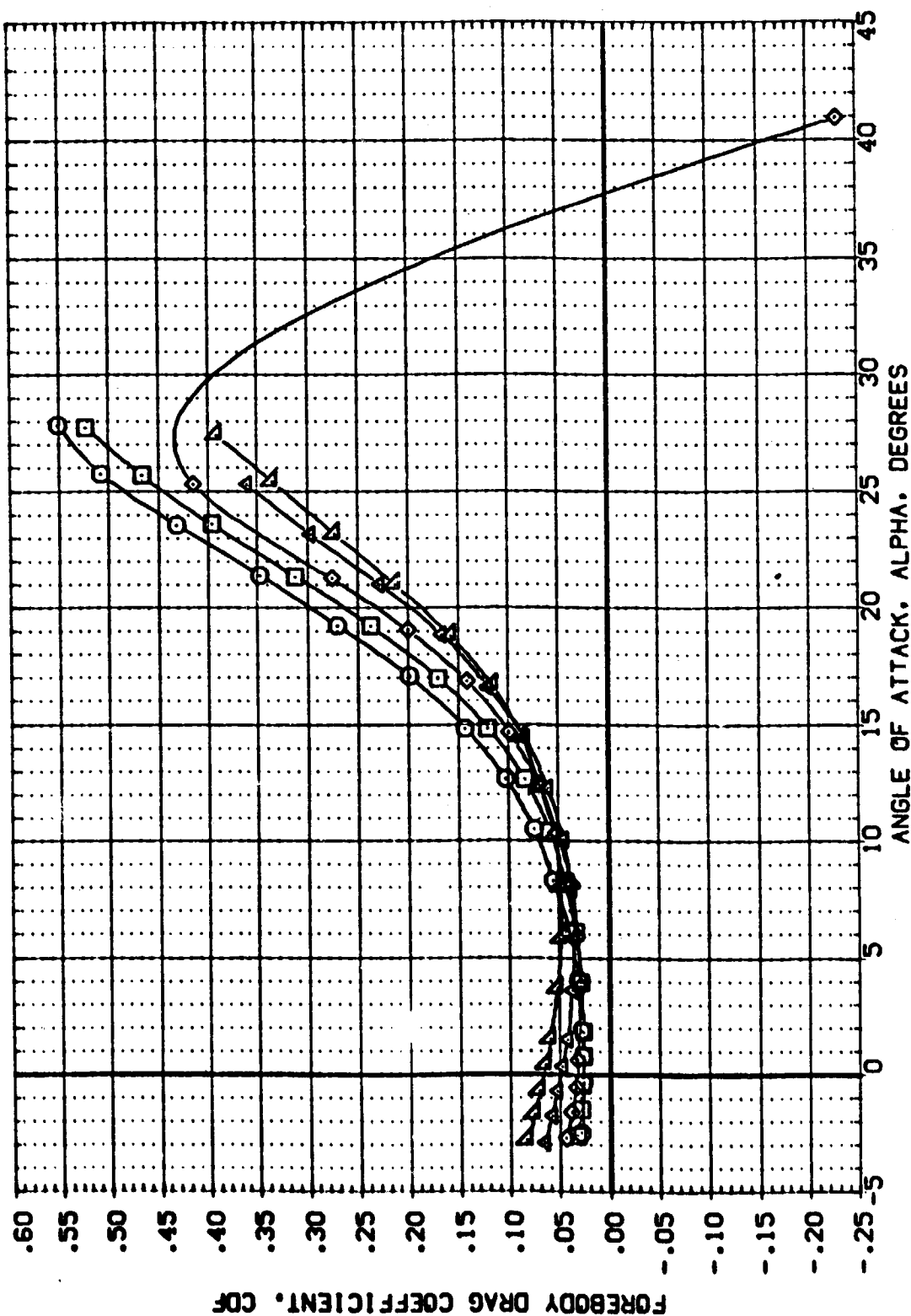


FIGURE 23 089B ORBITER ELEVON DEFLECTION EFFECTS (NEGATIVE DEFLECTIONS)

(A)RN/L = 4.70



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION	SO. IN.
APPC27	CA17.LTPT138.0R82A.(B1OC507F4	.000	-14.250	24.920	.000	SREF	87.1560
APPC32	CA17.LTPT138.0R82A.(B1OC507F4	-5.000	-14.250	24.920	.000	LREF	19.9245
APPC35	CA17.LTPT138.0R82A.(B1OC507F4	-9.400	-14.250	24.920	.000	BREF	14.0502
APPC36	CA17.LTPT138.0R82A.(B1OC507F4	-19.200	-14.250	24.920	.000	XREF	13.1469
APPC38	CA17.LTPT138.0R82A.(B1OC507F4	-24.500	-14.250	24.920	.000	YREF	6.0000
						ZREF	6.0000
						SCALE	.0150

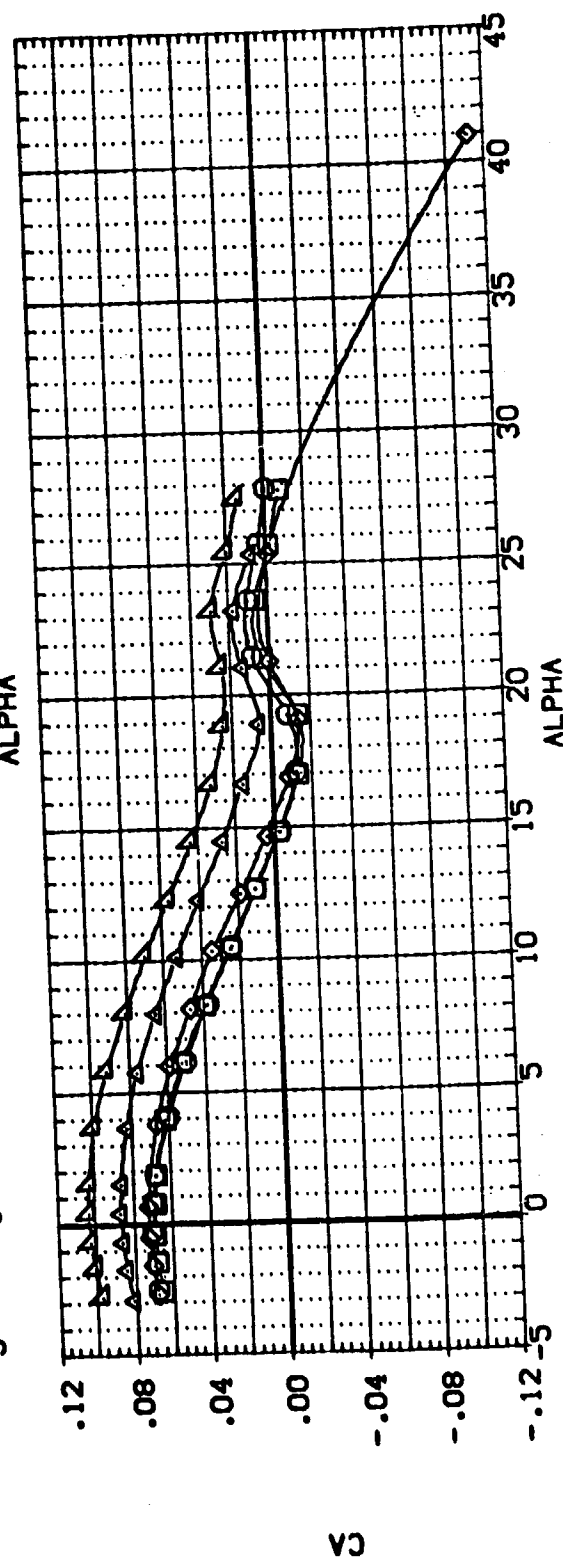
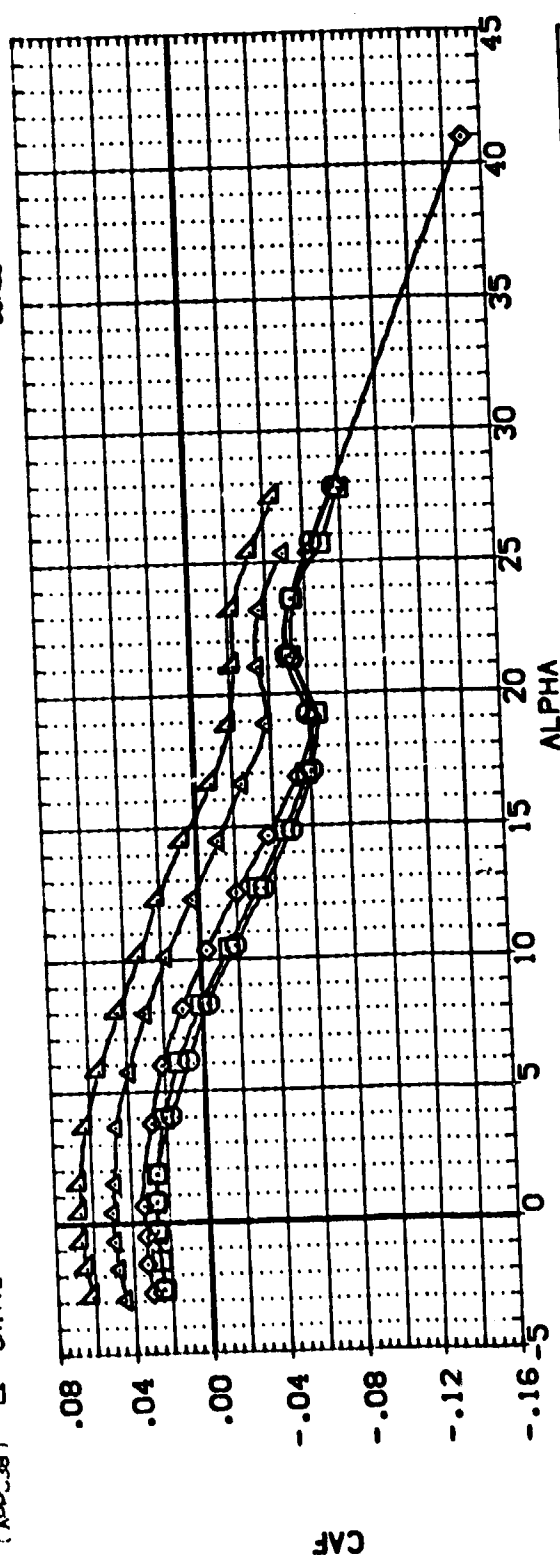


FIGURE 23 0898 ORBITER ELEVON DEFLECTION EFFECTS (NEGATIVE DEFLECTIONS)

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDER	REFERENCE INFORMATION
(APC027)	DA17.LTPT138.0RB2A.(B1OC507F4	.000	-14.250	24.920	.000	SREF 87.1500 50.IN
(APC032)	DA17.LTPT138.0RB2A.(B1OC507F4	-5.080	-14.250	24.920	.000	LREF 19.9245 IN-ES
(APC035)	DA17.LTPT138.0RB2A.(B1OC507F4	-8.400	-14.250	24.920	.000	BREF 14.0502 IN-ES
(APC038)	DA17.LTPT138.0RB2A.(B1OC507F4	-19.200	-14.250	24.920	.000	XREF 13.1469 IN-ES
		-24.500	-14.250	24.920	.000	ZREF 6.0000 IN-ES
						SCALE .0150

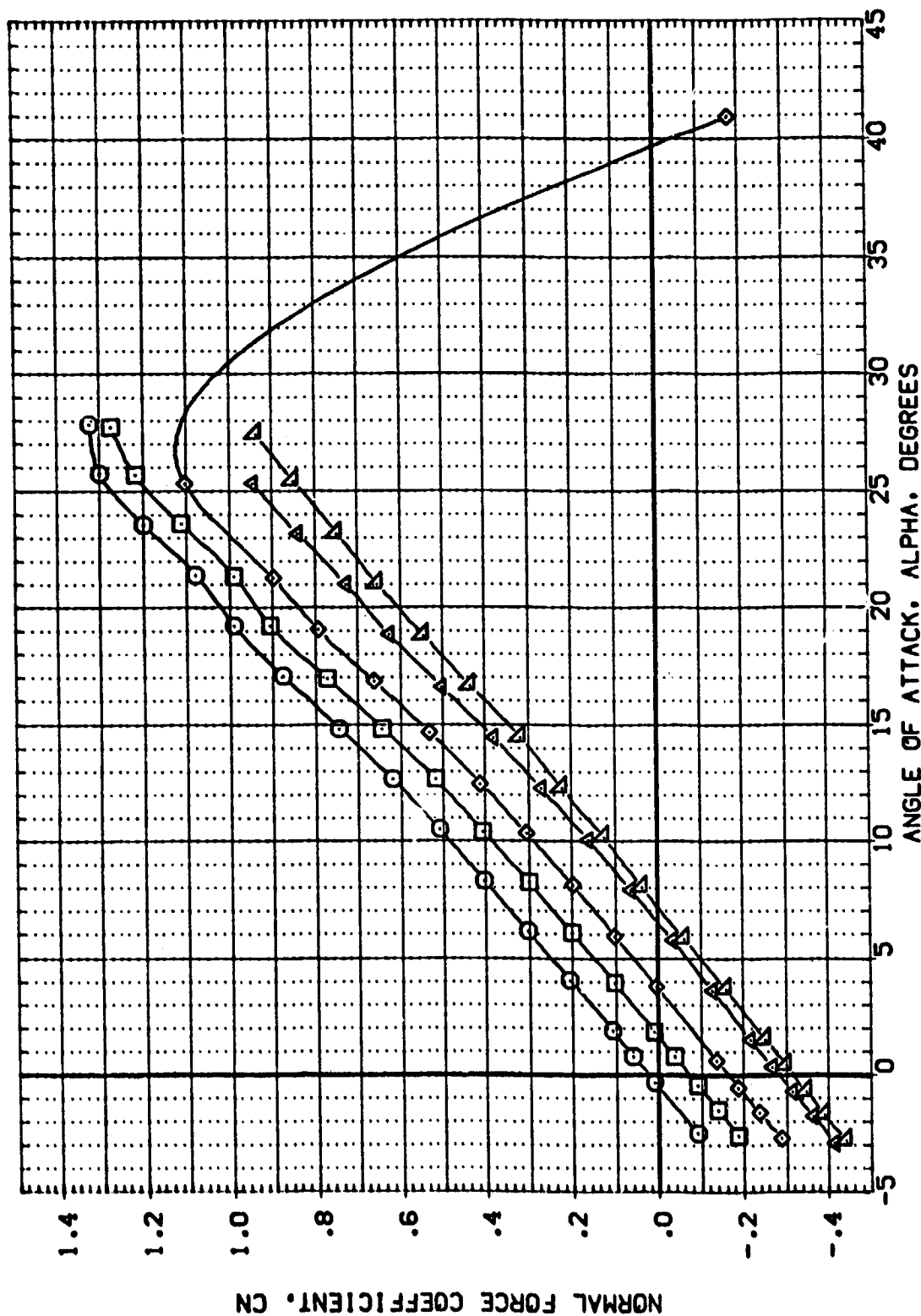


FIGURE 23 0898 ORBITER ELEVON DEFLECTION EFFECTS (NEGATIVE DEFLECTIONS)

(A)RN/L = 4.70



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEV.	SPDRK	RUDER	REFERENCE INFORMATION
(APP027)	CA17.LTPT138.CRB2A.(BIOC507F4	.000	-14.250	.000	SREF 87.1560
(APP022)	CA17.LTPT138.CRB2A.(BIOC507F4	-5.080	-14.250	.000	LREF 19.9245
(APP036)	CA17.LTPT138.CRB2A.(BIOC507F4	-9.100	-14.250	.000	BREF 14.0502
(APP035)	CA17.LTPT138.CRB2A.(BIOC507F4	-19.200	-14.250	.000	XREF 13.1469
(APP038)	CA17.LTPT138.CRB2A.(BIOC507F4	-24.500	-14.250	.000	YREF 6.0000
					ZREF 6.0000
					SCALE .0150

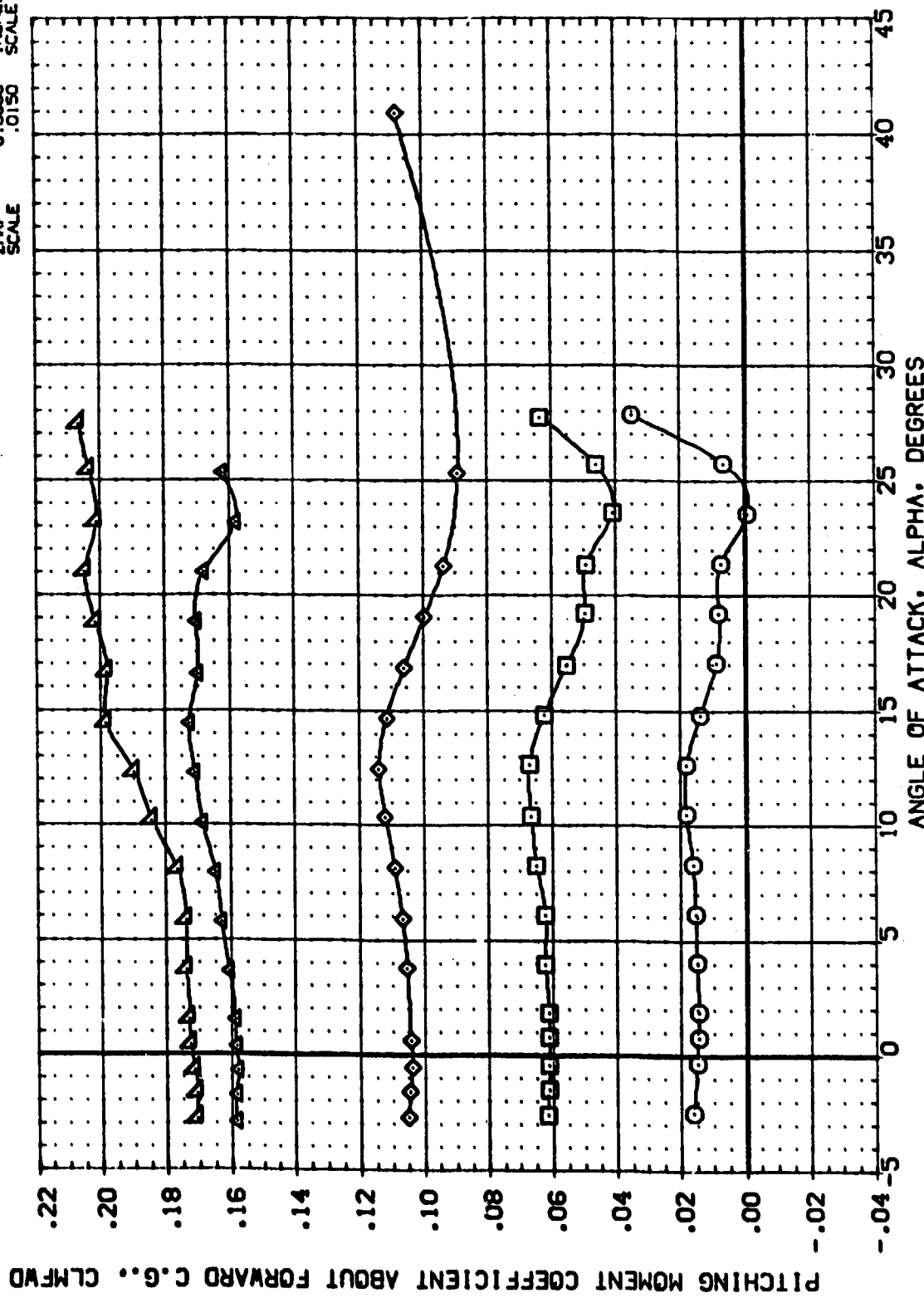


FIGURE 23 089B ORBITER ELEVON DEFLECTION EFFECTS (NEGATIVE DEFLECTIONS)

(AJRN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDOR	REFERENCE INFORMATION
(APC27)	DA17, L1PT138, ORB2A, (B1DC507F4					SREF 87.1560 50 IN
(APC32)	DA17, L1PT138, ORB2A, (B1DC507F4					LREF 19.5245 INC-ES
(APC36)	DA17, L1PT138, ORB2A, (B1DC507F4					BREF 14.0502 INC-ES
(APC35)	DA17, L1PT138, ORB2A, (B1DC507F4					XREF 13.1469 INC-ES
(APC38)	DA17, L1PT138, ORB2A, (B1DC507F4					YREF 6.0000 INC-ES
						ZREF 6.0000 INC-ES
						SCALE .0150 SCALE

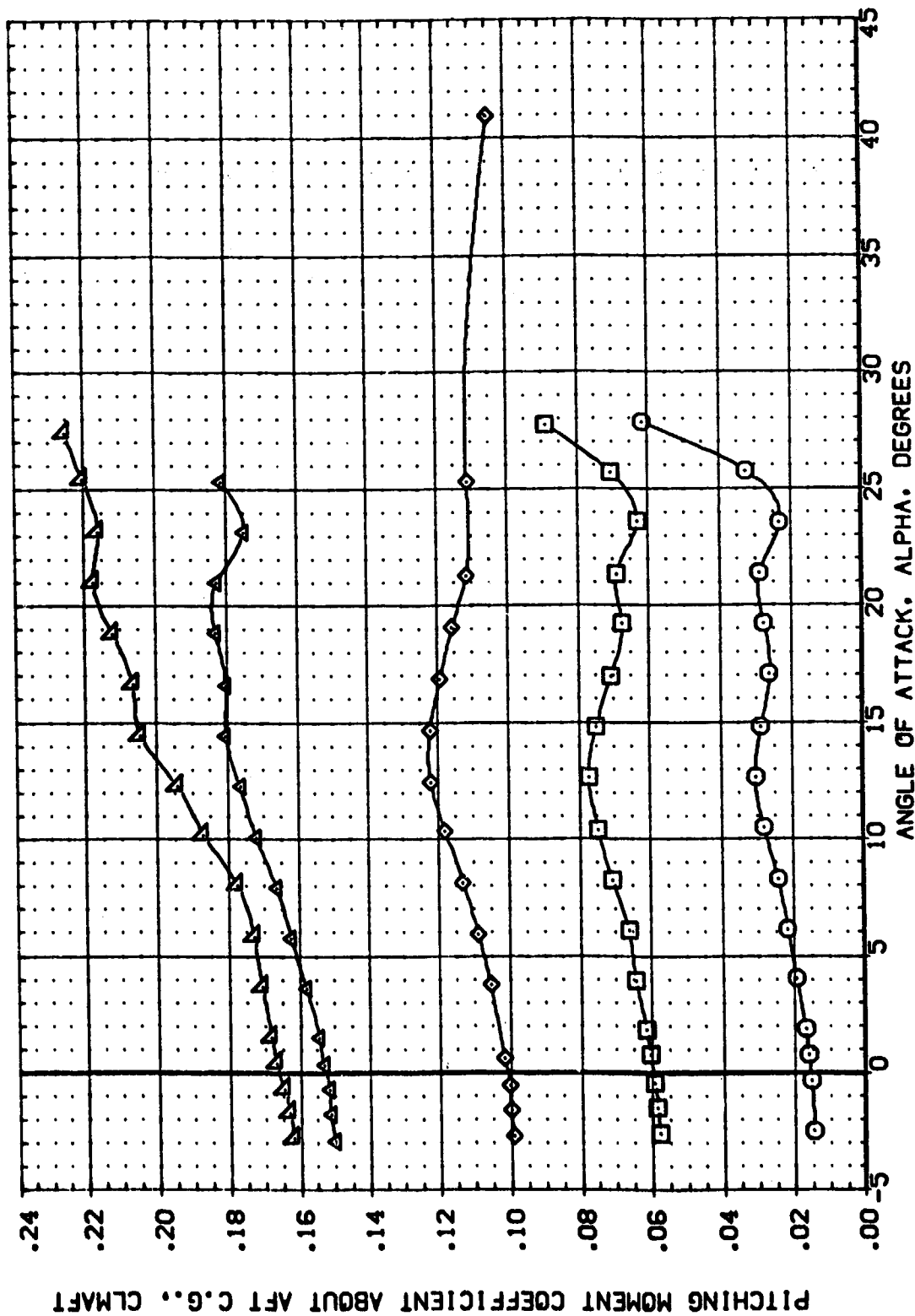


FIGURE 23 089B ORBITER ELEVON DEFLECTION EFFECTS (NEGATIVE DEFLECTIONS)

(A)RN/L = 4.70



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RLODR	REFERENCE INFORMATION
(APP027)	CA17,LTPT138,DR82A,(B)OC507F4	.000	-14.250	24.920	.000	SREF 87.1560 50 IN.
(APP032)	CA17,LTPT138,DR82A,(B)OC507F4	-5.080	-14.250	24.920	.000	LREF 19.9245 INCHES
(APP036)	CA17,LTPT138,DR82A,(B)OC507F4	-9.400	-14.250	24.920	.000	BREF 14.0302 INCHES
(APP035)	CA17,LTPT138,DR82A,(B)OC507F4	-19.200	-14.250	24.920	.000	XREF 13.1469 INCHES
(APP038)	CA17,LTPT138,DR82A,(B)OC507F4	-24.500	-14.250	24.920	.000	YREF 6.0000 INCHES
						ZREF .0150 SCALE

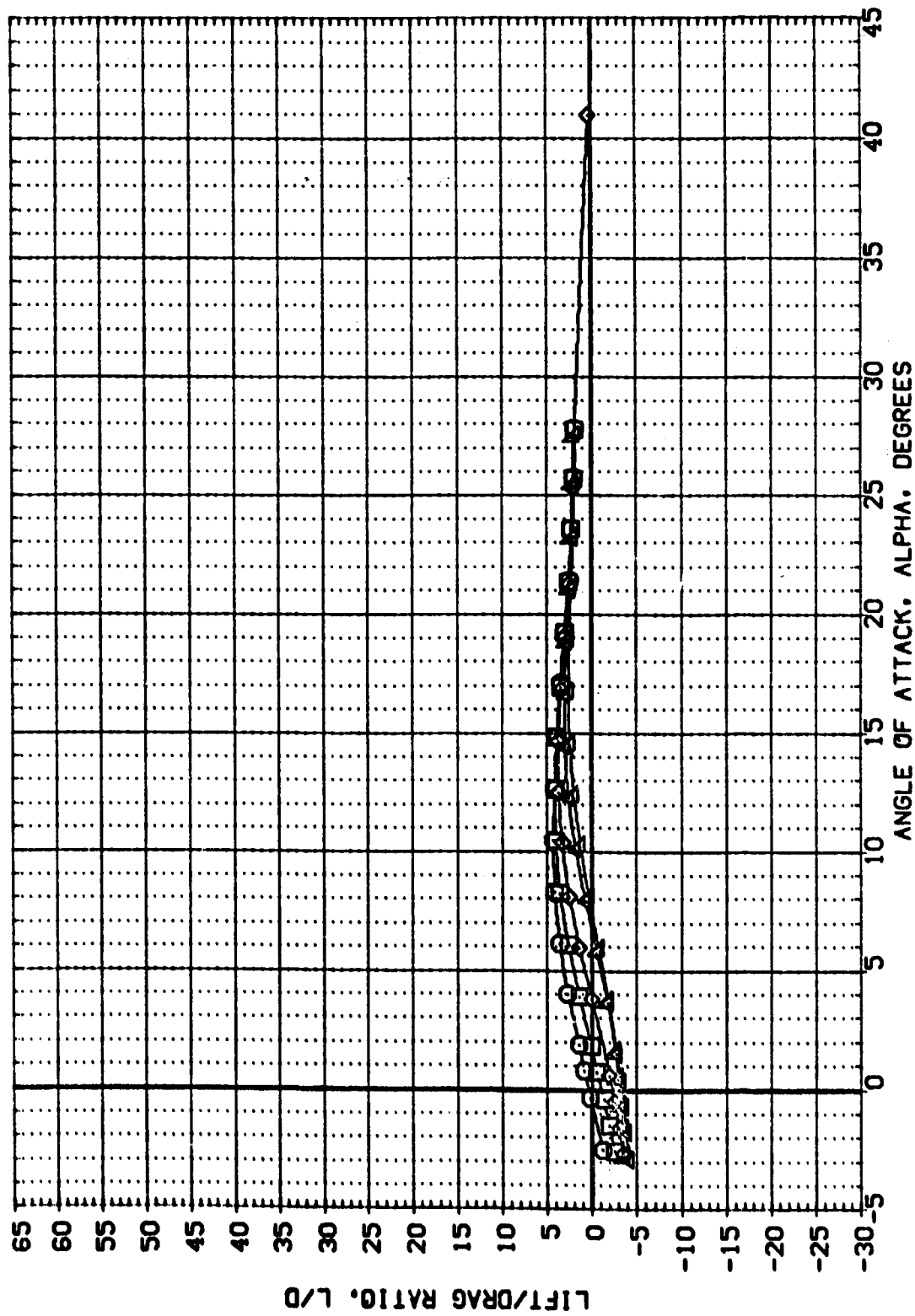


FIGURE 23 0898 ORBITER ELEVON DEFLECTION EFFECTS (NEGATIVE DEFLECTIONS)

(AJRN/L = 4.70

PAGE

457

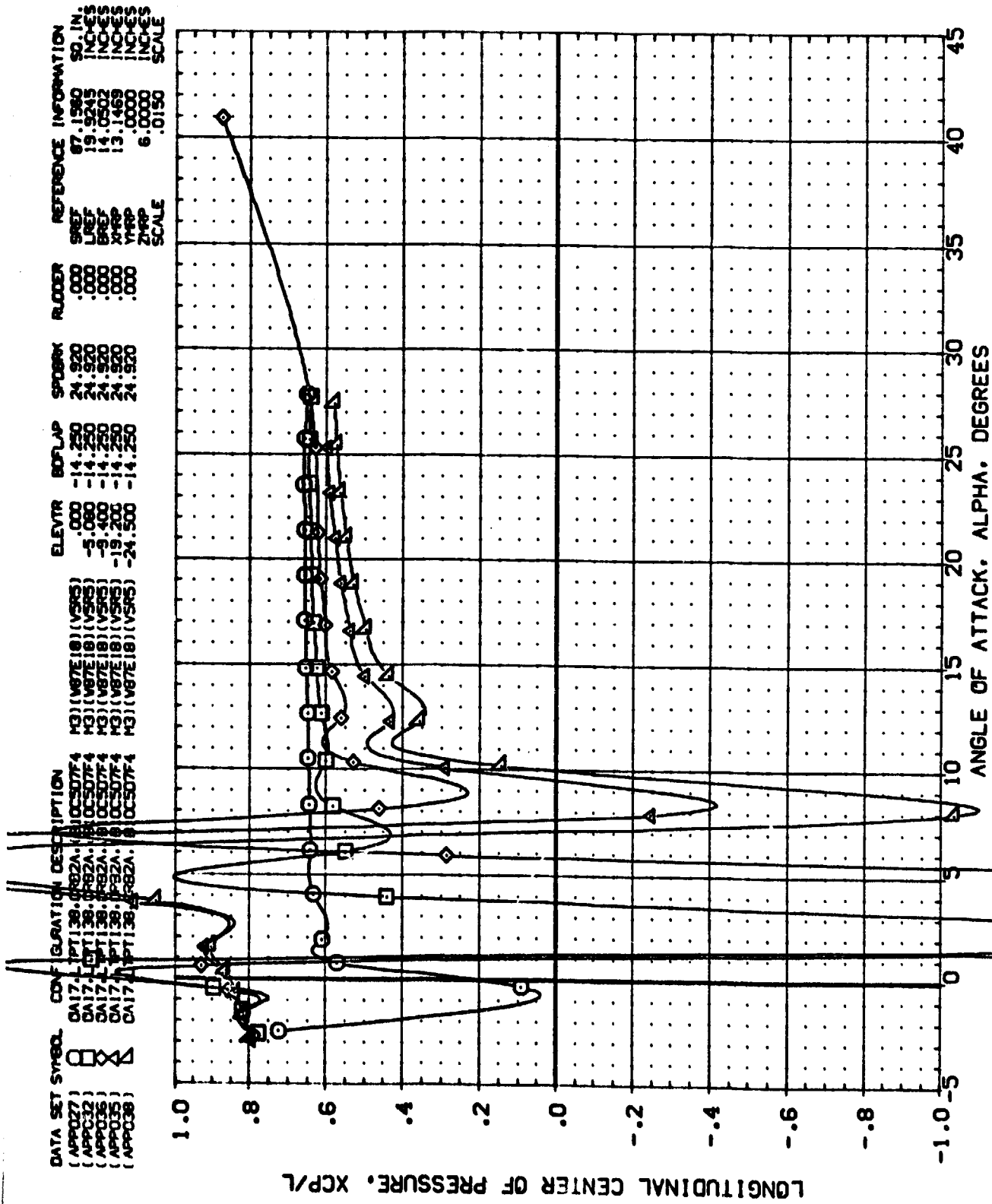


FIGURE 23 089B ORBITER ELEVON DEFLECTION EFFECTS (NEGATIVE DEFLECTIONS)

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BDFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APPC27)	DA17.LTPT138.CRB2A.(B10C507F4	.000	-14.250	24.920	.000	SREF 97.1560
(APPC27)	DA17.LTPT138.CRB2A.(B10C507F4	-5.080	-14.250	24.920	.000	LREF 19.9245
(APPC36)	DA17.LTPT138.CRB2A.(B10C507F4	-9.400	-14.250	24.920	.000	BREF 14.0502
(APPC35)	DA17.LTPT138.CRB2A.(B10C507F4	-19.200	-14.250	24.920	.000	XREF 13.1469
(APPC38)	DA17.LTPT138.CRB2A.(B10C507F4	-24.500	-14.250	24.920	.000	YREF .0000
						ZREF .0000
						SCALE .0150

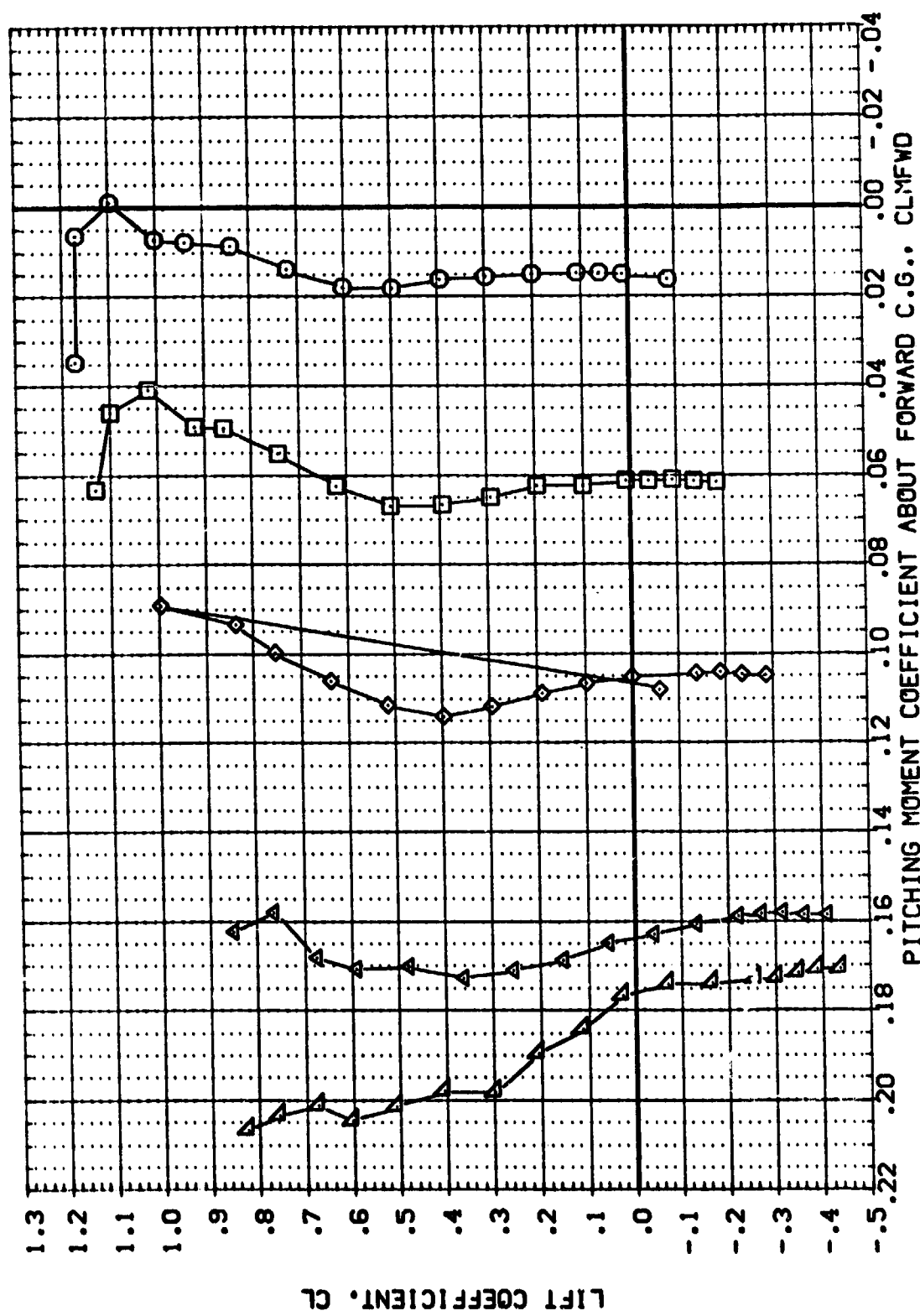


FIGURE 23 089B ORBITER ELEVON DEFLECTION EFFECTS (NEGATIVE DEFLECTIONS)

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	P31(V87E18)(V595)	ELEVTR	BOFLAP	SP08RK	RUDDER	REFERENCE INFORMATION
(APP027)	DA17.LTPT 38.DR82A.(8)IC507F4		.000	-14.250	24.920	.000	SREF 67.1560 SO.IN.
(APP032)	DA17.LTPT 38.DR82A.(8)IC507F4		-5.080	-14.250	24.920	.000	LREF 19.9245 INCHES
(APP035)	DA17.LTPT 38.DR82A.(8)IC507F4		-9.400	-14.250	24.920	.000	BREF 14.0502 INCHES
(APP036)	DA17.LTPT 38.DR82A.(8)IC507F4		-19.200	-14.250	24.920	.000	XREF 13.1469 INCHES
(APP038)	DA17.LTPT 38.DR82A.(8)IC507F4		-24.500	-14.250	24.920	.000	YREF 6.0000 INCHES
							ZREF 6.0000 INCHES
							SCALE .0150 SCALE

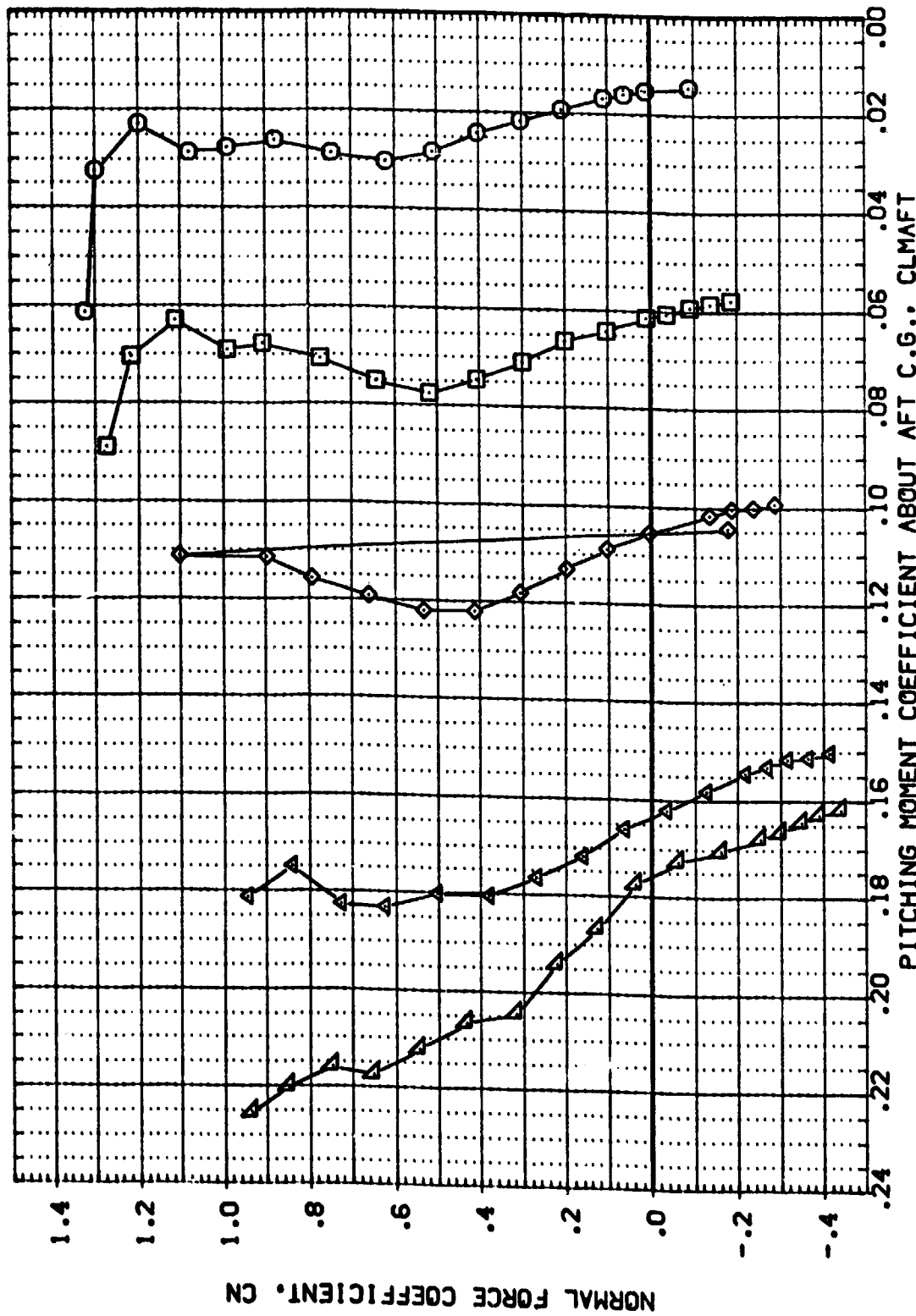


FIGURE 23 089B ORBITER ELEVON DEFLECTION EFFECTS (NEGATIVE DEFLECTIONS)

(A)RN/L = 4.70



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BD/LAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APPO37)	DA17,LTPT138,OR82A,(B)OC507F4	.000	-14.250	24.920	.000	SREF 87.1560 SQ.IN.
(APPO32)	DA17,LTPT138,OR82A,(B)OC507F4	-5.080	-14.250	24.920	.000	LREF 19.9245 INCHES
(APPO36)	DA17,LTPT138,OR82A,(B)OC507F4	-9.400	-14.250	24.920	.000	BREF 14.0502 INCHES
(APPO35)	DA17,LTPT138,OR82A,(B)OC507F4	-19.200	-14.250	24.920	.000	XMRP 13.1469 INCHES
(APPO38)	DA17,LTPT138,OR82A,(B)OC507F4	-24.500	-14.250	24.920	.000	ZMRP 6.0000 INCHES
						SCALE .0150

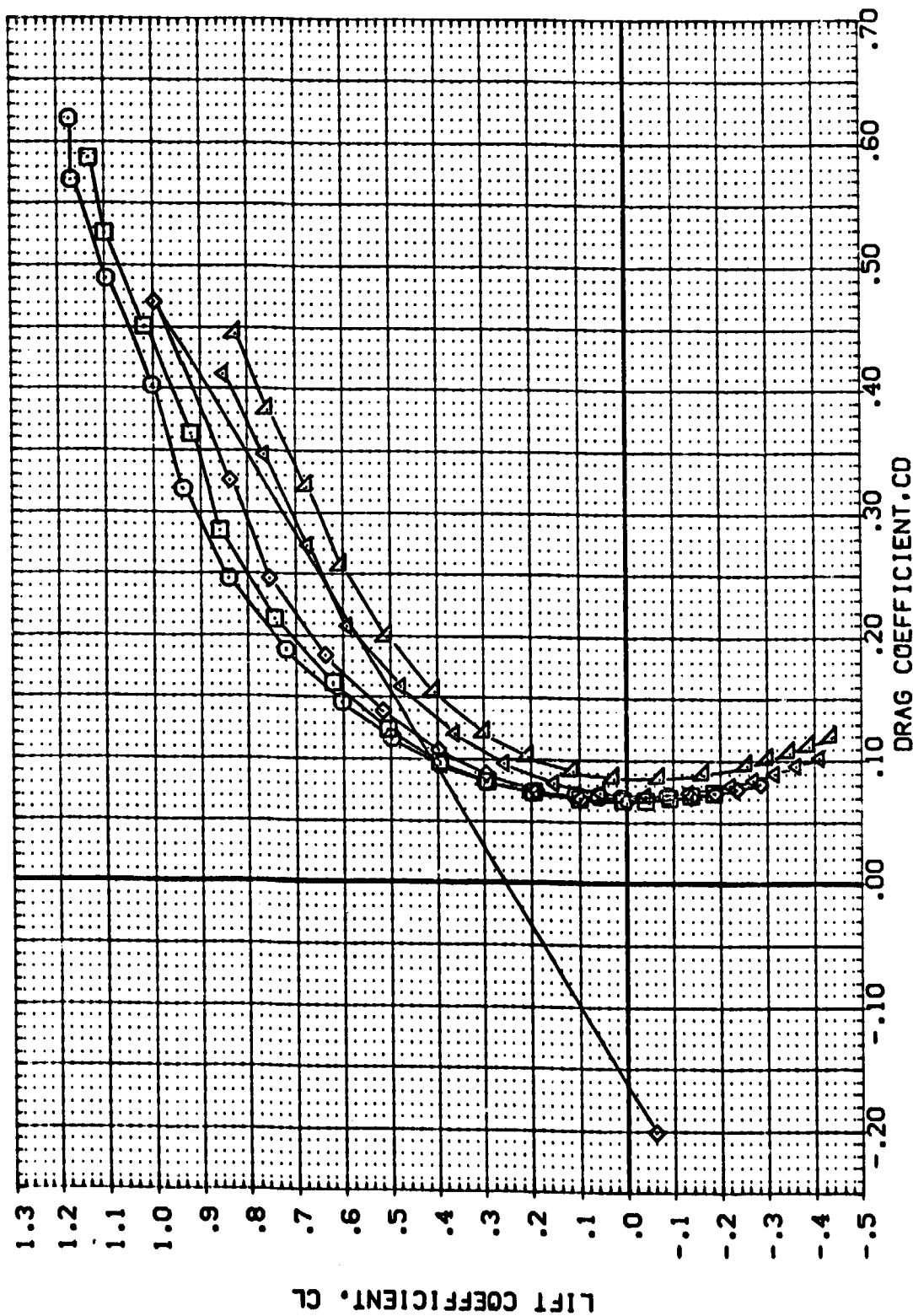


FIGURE 23 089B ORBITER ELEVON DEFLECTION EFFECTS (NEGATIVE DEFLECTIONS)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	P31(V87E18)(V5K5)	ELEVTR	BOFLAP	SPORBK	RUDER	REFERENCE INFORMATION
(RPP027)	DA17,LTPT138,OR82A,(B)DC507F4	P31(V87E18)(V5K5)	.000	-14.250	24.920	.000	SREF 87.1560 SQ.IN.
(RPP032)	DA17,LTPT138,OR82A,(B)DC507F4	P31(V87E18)(V5K5)	-5.080	-14.250	24.920	.000	LREF 19.9245 INCHES
(RPP035)	DA17,LTPT138,OR82A,(B)DC507F4	P31(V87E18)(V5K5)	-8.400	-14.250	24.920	.000	BREF 14.0502 INCHES
(RPP035)	DA17,LTPT138,OR82A,(B)DC507F4	P31(V87E18)(V5K5)	-19.200	-14.250	24.920	.000	XREF 13.1469 INCHES
(RPP038)	DA17,LTPT138,OR82A,(B)DC507F4	P31(V87E18)(V5K5)	-24.500	-14.250	24.920	.000	YREF 6.0000 INCHES
							ZREF 6.0000 INCHES
							SCALE .0150

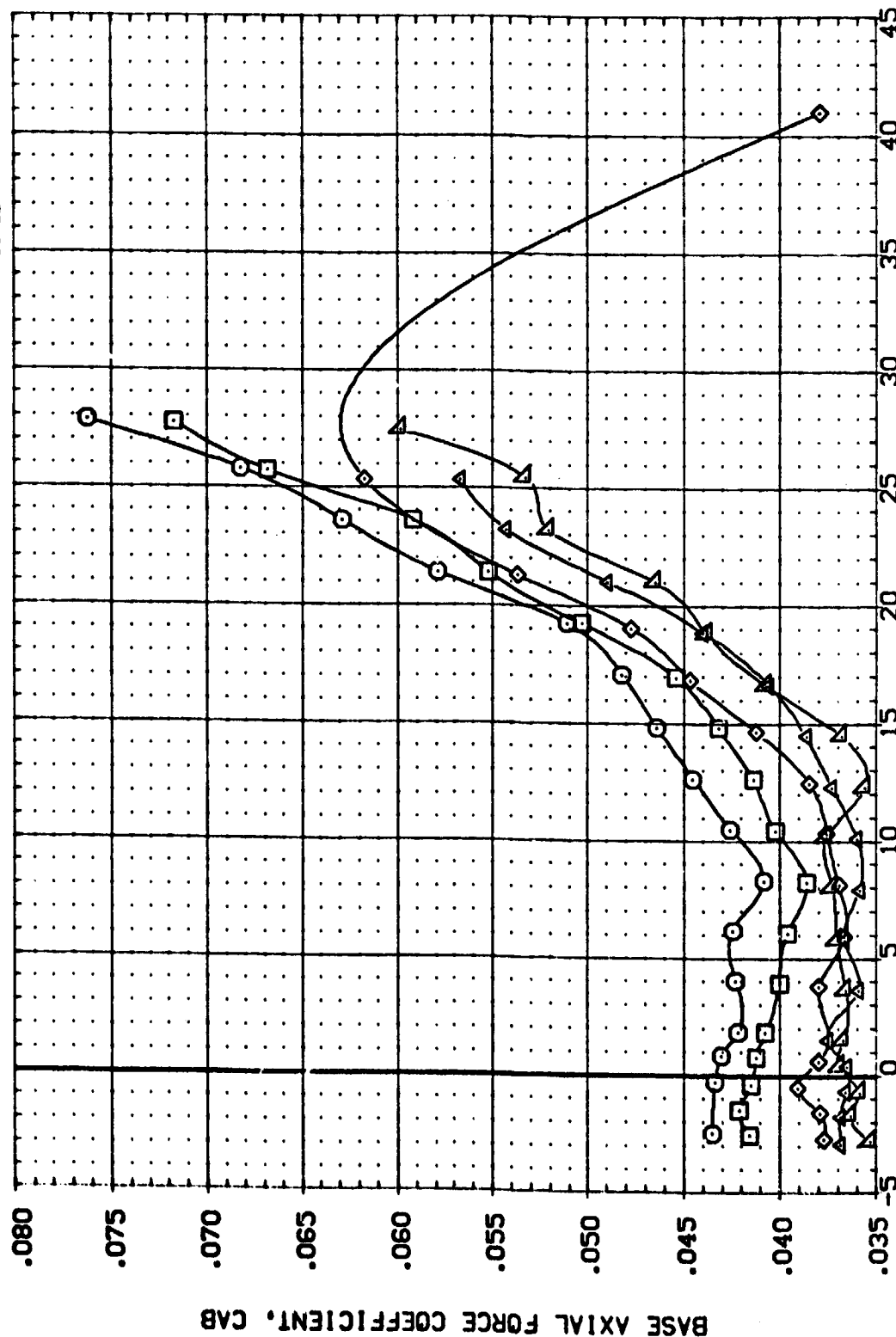


FIGURE 23 0898 ORBITER ELEVON DEFLECTION EFFECTS (NEGATIVE DEFLECTIONS)

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RLOODR	REFERENCE INFORMATION
(APPC27)	DA17, L1PT138, ORB2A, (B10C507F4	000	-14.250	24.920	.000	SREF 87.1560 50. IN
(APPC32)	DA17, L1PT138, ORB2A, (B10C507F4	-5.080	-14.250	24.920	.000	LREF 19.9245 INCHES
(APPC36)	DA17, L1PT138, ORB2A, (B10C507F4	-9.100	-14.250	24.920	.000	BREF 14.0502 INCHES
(APPC35)	DA17, L1PT138, ORB2A, (B10C507F4	-19.200	-14.250	24.920	.000	XREF 13.1469 INCHES
(APPC38)	DA17, L1PT138, ORB2A, (B10C507F4	-24.500	-14.250	24.920	.000	YREF 6.0000 INCHES
						ZREF .0150 SCALE

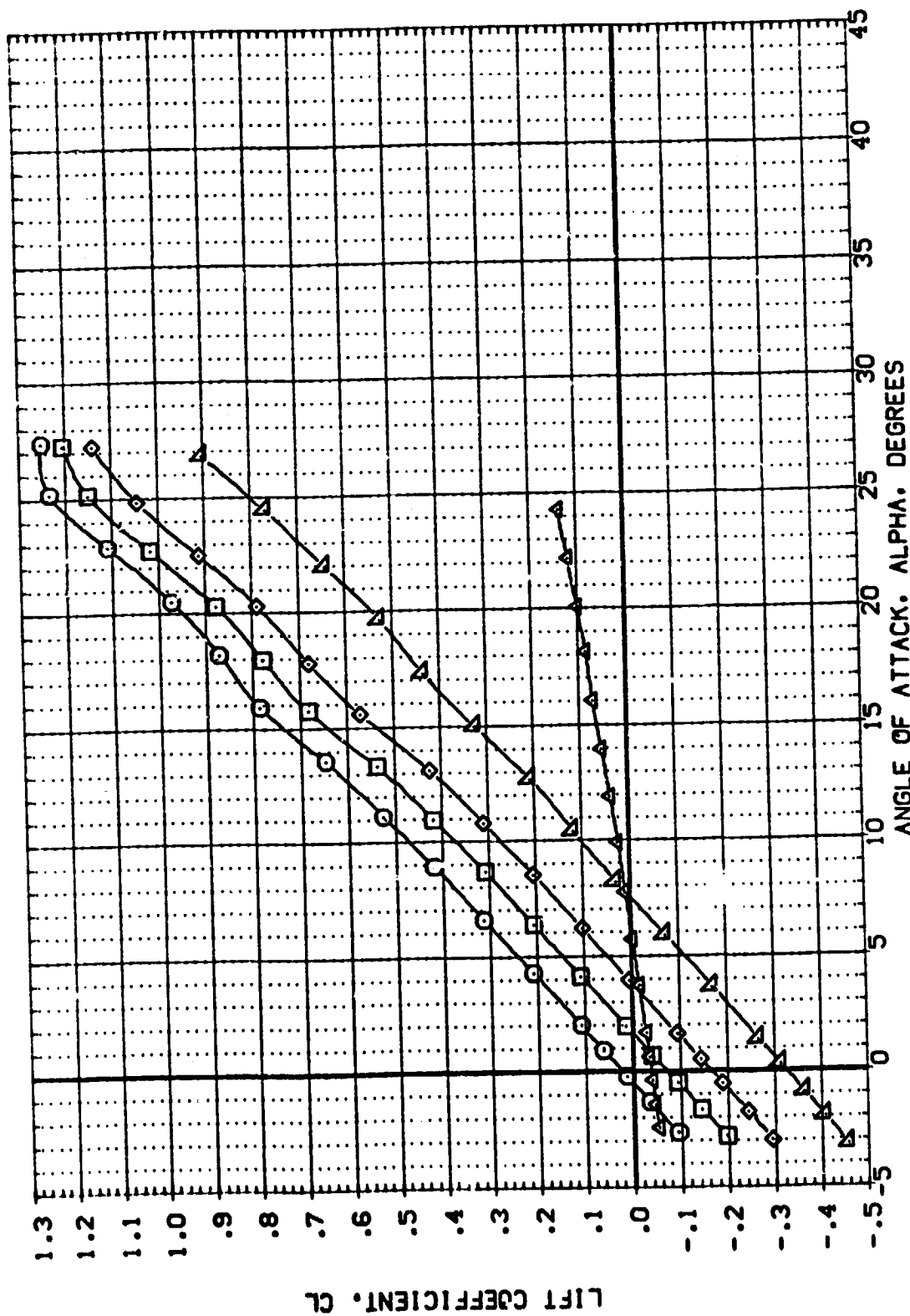


FIGURE 23 ORBITER ELEVON DEFLECTION EFFECTS (NEGATIVE DEFLECTIONS)

(A) RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	M3(V87E18)(V5R5)	ELEVTR	BOFLAP	SPOBRK	RLOOER	REFERENCE INFORMATION
(APP027)	DA17.LTPT138.CRB2A.(B10C507F4	M3(V87E18)(V5R5)	.000	-14.250	24.920	.000	SREF 97.1560 SO.IN.
(APP032)	DA17.LTPT138.CRB2A.(B10C507F4	M3(V87E18)(V5R5)	-5.080	-14.250	24.920	.000	LREF 19.9245 INCHES
(APP035)	DA17.LTPT138.CRB2A.(B10C507F4	M3(V87E18)(V5R5)	-9.400	-14.250	24.920	.000	BREF 14.0502 INCHES
(APP035)	DA17.LTPT138.CRB2A.(B10C507F4	M3(V87E18)(V5R5)	-19.200	-14.250	24.920	.000	XMRP 13.1469 INCHES
(APP038)	DA17.LTPT138.CRB2A.(B10C507F4	M3(V87E18)(V5R5)	-24.500	-14.250	24.920	.000	ZMRP 6.0000 INCHES
						SCALE	.0150 SCALE

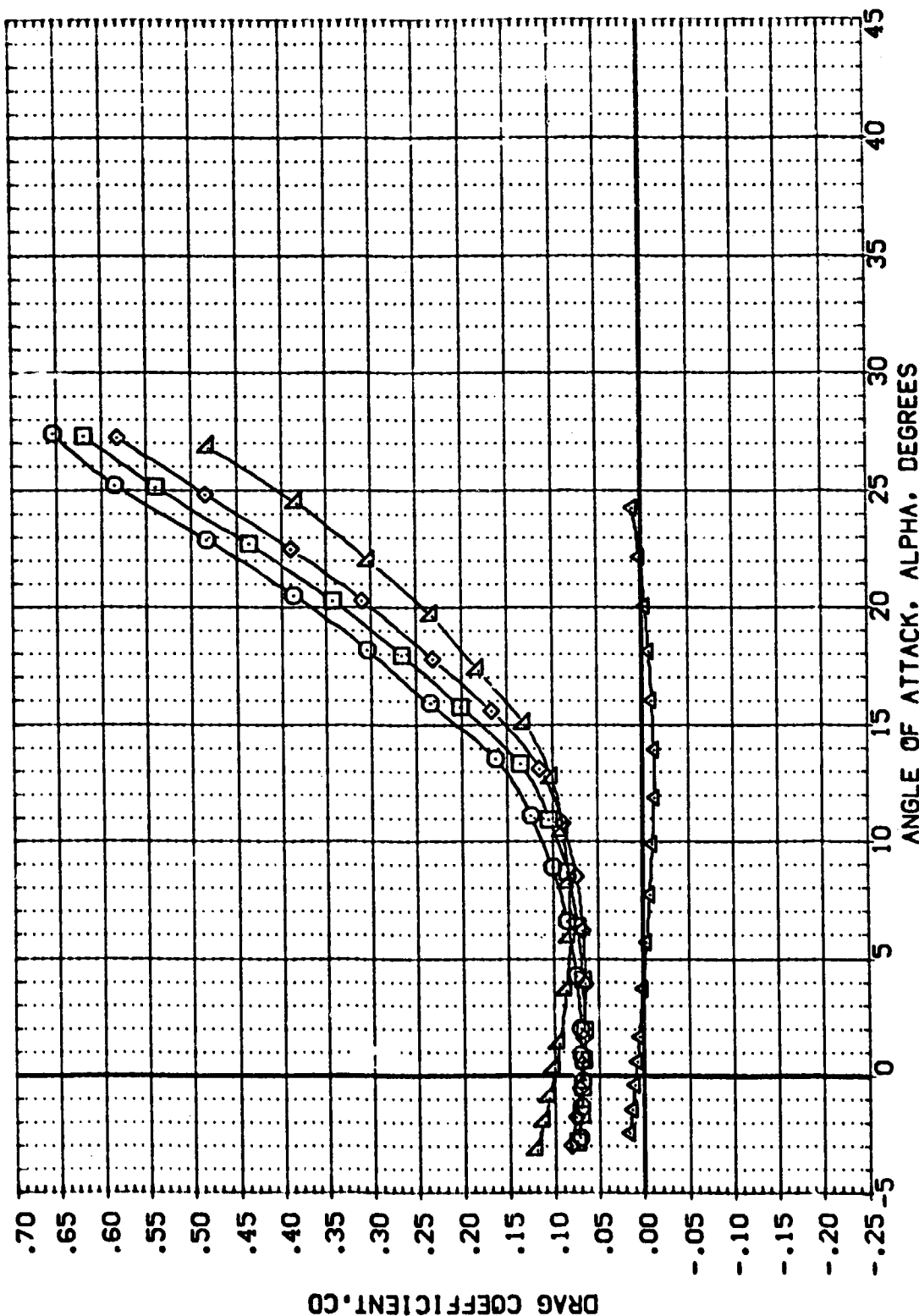


FIGURE 23 089B ORBITER ELEVON DEFLECTION EFFECTS (NEGATIVE DEFLECTIONS)

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPDRBK	RUDDER	REFERENCE INFORMATION
(APR027)	DA17,LTPT138,OR82A,(B)DC507F4	.000	-14.250	24.920	.000	SREF 87.1560 SO. IN.
(APR032)	DA17,LTPT138,OR82A,(B)DC507F4	-5.060	-14.250	24.920	.000	LREF 19.9245 INCHES
(APR036)	DA17,LTPT138,OR82A,(B)DC507F4	-9.400	-14.250	24.920	.000	BREF 14.0502 INCHES
(APR035)	DA17,LTPT138,OR82A,(B)DC507F4	-19.200	-14.250	24.920	.000	XPRP 13.1469 INCHES
(APR038)	DA17,LTPT138,OR82A,(B)DC507F4	-24.500	-14.250	24.920	.000	ZPRP 6.0000 INCHES
						SCALE .0150

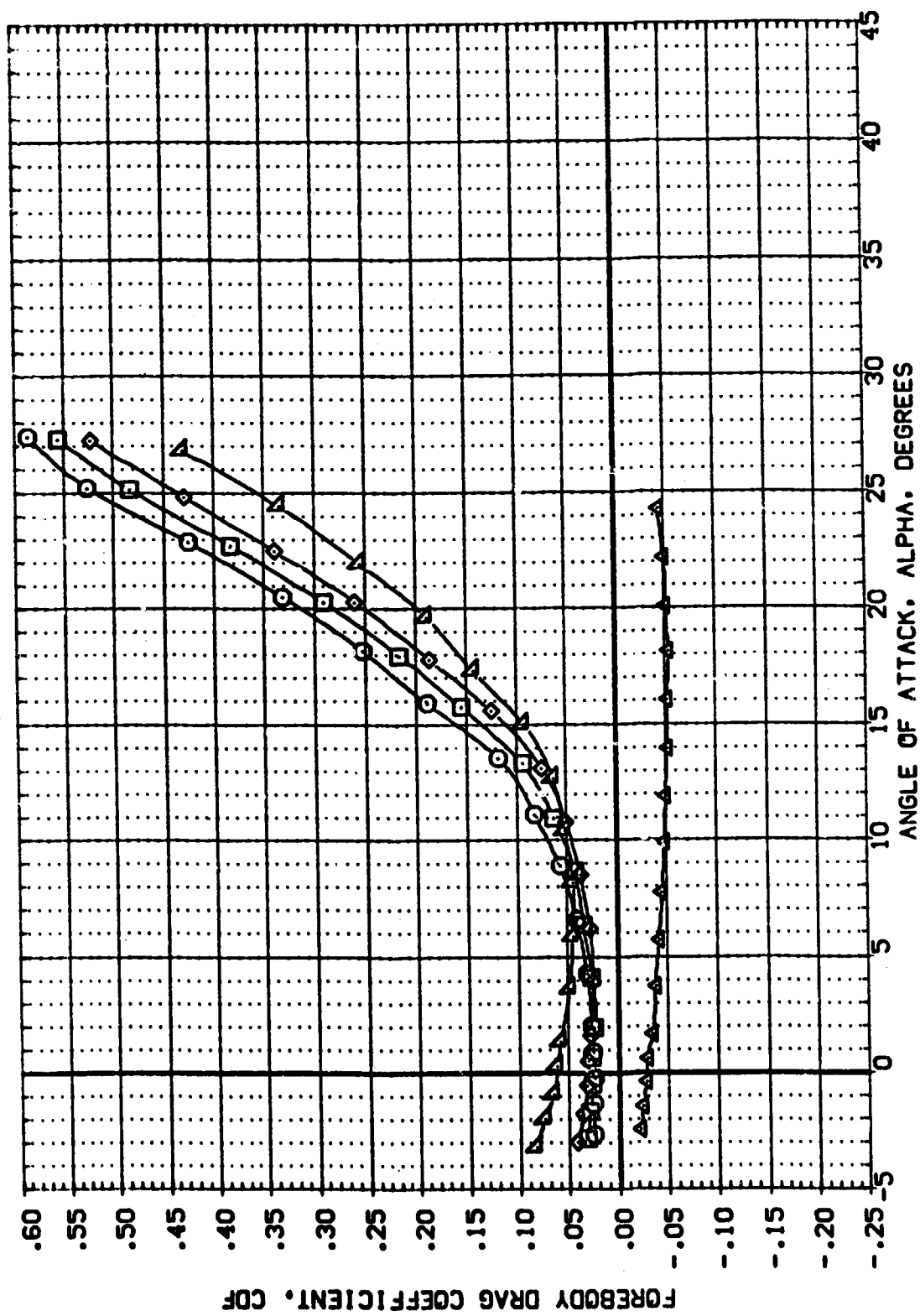


FIGURE 23 089B ORBITER ELEVON DEFLECTION EFFECTS (NEGATIVE DEFLECTIONS)

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	POI(V87E)81(V59S)	ELEVTR	BDFLAP	SPOBOK	RUGGER	REFERENCE INFORMATION
(APPO27)	CA17.LTPT 38.DR82A.(8)OC507F4	POI(V87E)81(V59S)	000	-14.250	24.520	.000	SREF 87.1560 50.IN
(APPO32)	CA17.LTPT 38.DR82A.(8)OC507F4	POI(V87E)81(V59S)	-5.000	-14.250	24.520	.000	LRST 19.9245 INCHES
(APPO36)	CA17.LTPT 38.DR82A.(8)OC507F4	POI(V87E)81(V59S)	-9.400	-14.250	24.520	.000	BRST 14.0502 INCHES
(APPO38)	CA17.LTPT 38.DR82A.(8)OC507F4	POI(V87E)81(V59S)	-19.200	-14.250	24.520	.000	YPRP 13.1469 INCHES
(APPO38)	CA17.LTPT 38.DR82A.(8)OC507F4	POI(V87E)81(V59S)	-24.500	-14.250	24.520	.000	ZPRP 6.0000 INCHES
							SCALE .0150

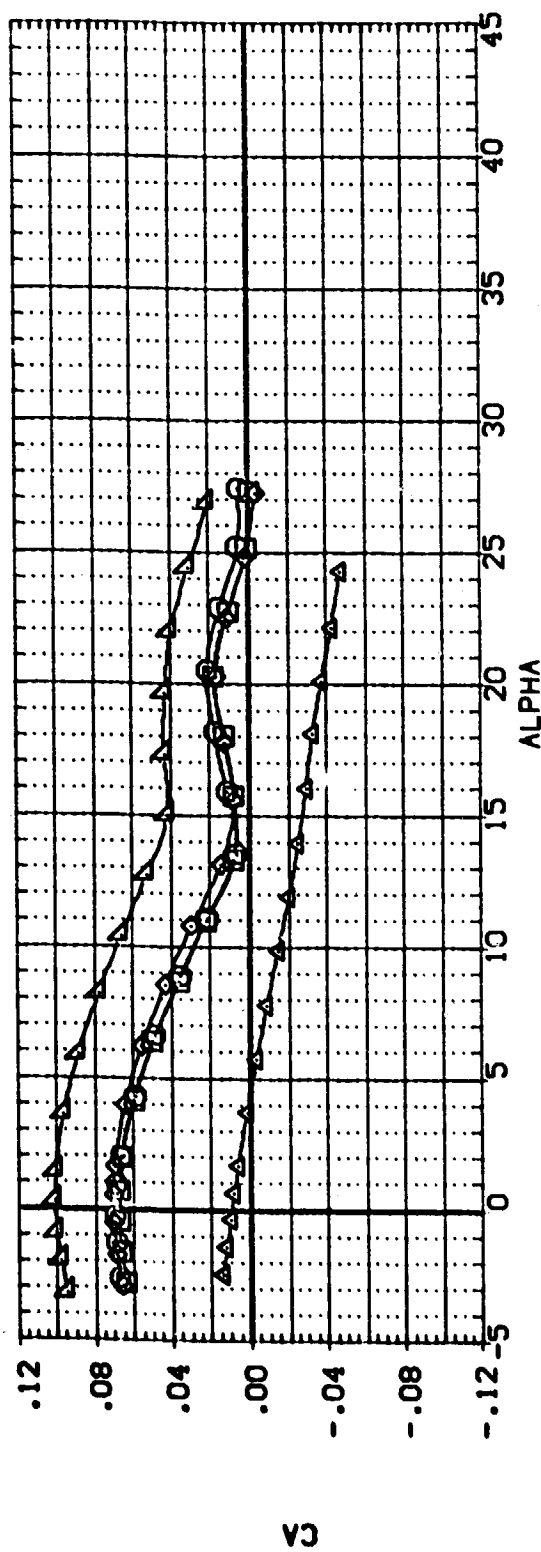
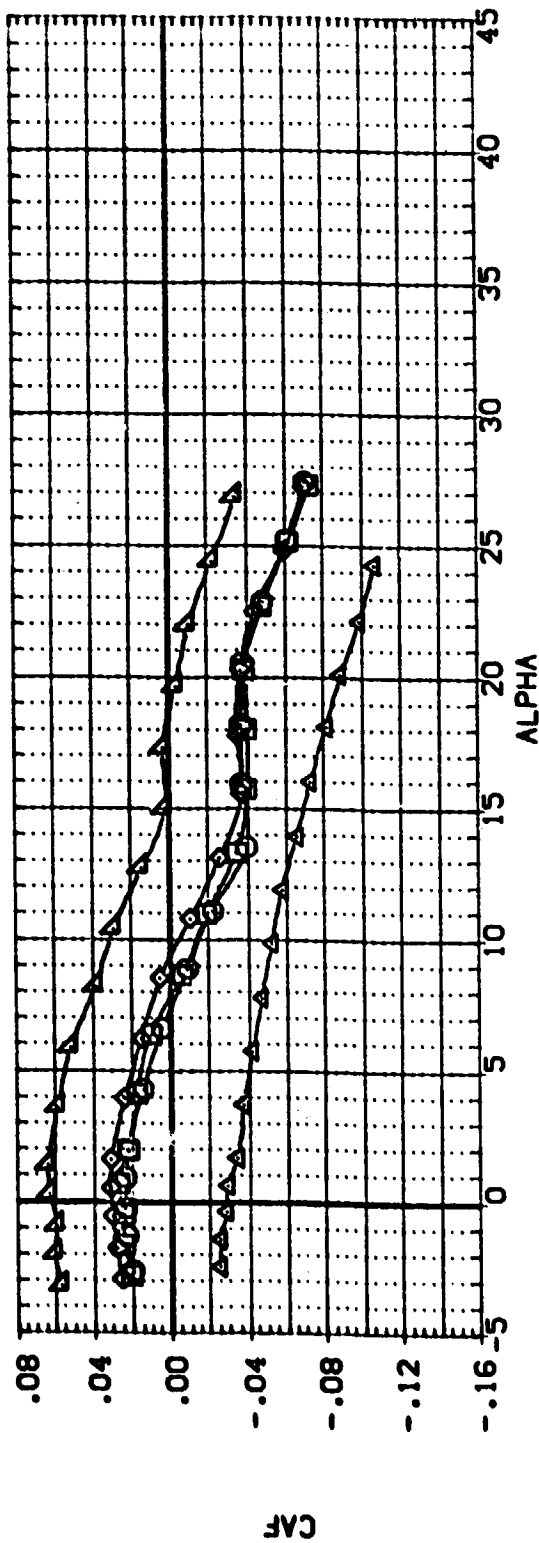


FIGURE 23 089B ORBITER ELEVON DEFLECTION EFFECTS (NEGATIVE DEFLECTIONS)

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	8DFLAP	SPOBRK	RUDER	REFERENCE INFORMATION
(APPC27)	CA17.LTPT138.0882A.(B10C507F4	.000	-14.250	24.920	.000	SREF 87.1560 SQ.IN.
(APPC32)	CA17.LTPT138.0882A.(B10C507F4	-5.000	-14.250	24.920	.000	LREF 19.9245 INCHES
(APPC33)	CA17.LTPT138.0882A.(B10C507F4	-9.400	-14.250	24.920	.000	BREF 14.0502 INCHES
(APPC35)	CA17.LTPT138.0882A.(B10C507F4	-19.200	-14.250	24.920	.000	XMRP 13.1469 INCHES
(APPC38)	CA17.LTPT138.0882A.(B10C507F4	-24.500	-14.250	24.920	.000	ZMRP 6.0000 INCHES
						SCALE 6.0150 SCALE

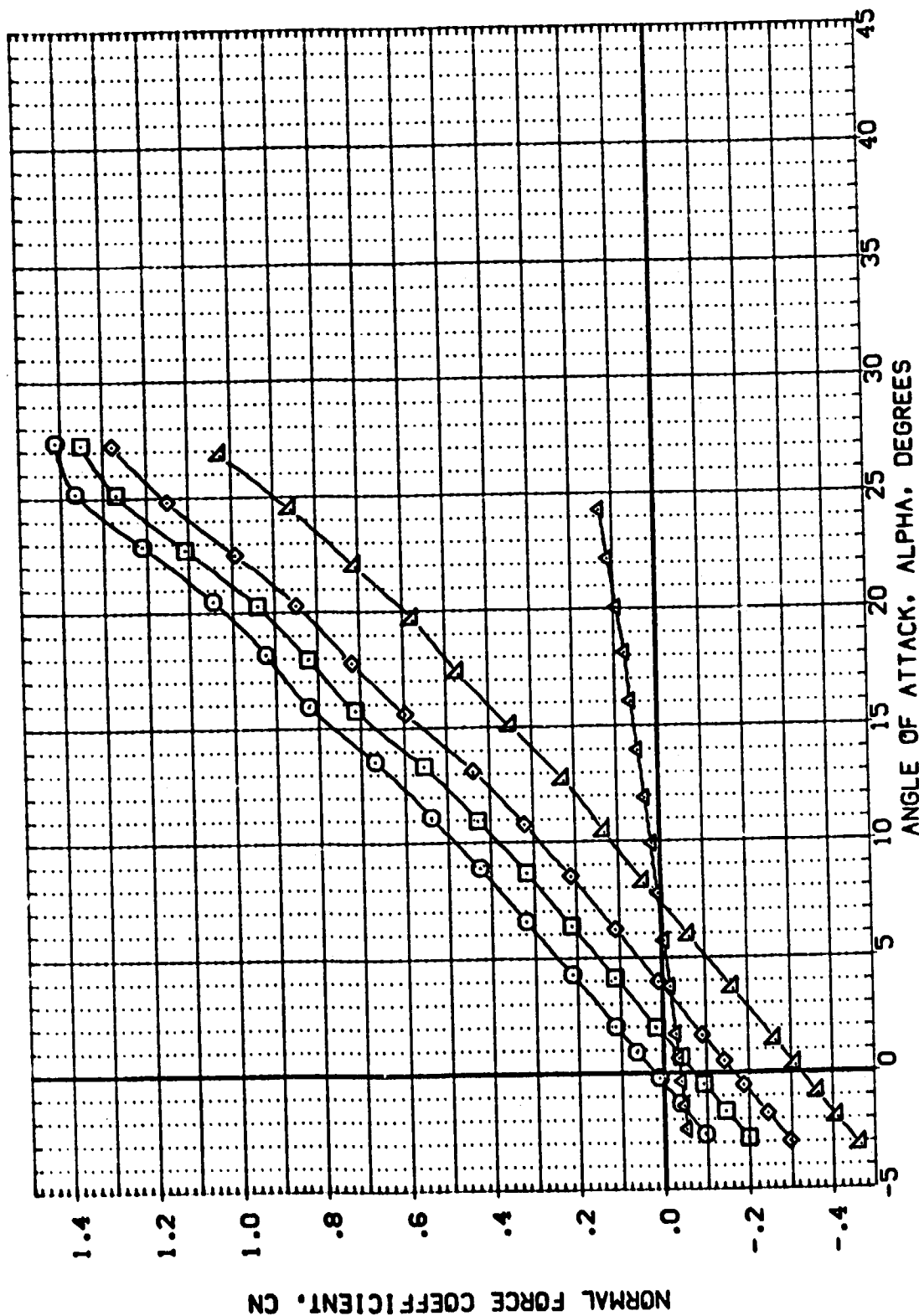


FIGURE 23 089B ORBITER ELEVON DEFLECTION EFFECTS (NEGATIVE DEFLECTIONS)

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPDRBK	RUDDER	REFERENCE INFORMATION
(APC027)	DA17.LTPT138.DR82A.(B1OC507F4	.000	-14.250	24.920	.000	SREF 87.1560 50.1N.
(APC032)	DA17.LTPT138.DR82A.(B1OC507F4	-5.080	-14.250	24.920	.000	LREF 19.9245 IN-ES
(APC035)	DA17.LTPT138.DR82A.(B1OC507F4	-9.400	-14.250	24.920	.000	BREF 14.0502 IN-ES
(APC035)	DA17.LTPT138.DR82A.(B1OC507F4	-19.200	-14.250	24.920	.000	XTRP 13.1469 IN-ES
(APC035)	DA17.LTPT138.DR82A.(B1OC507F4	-24.500	-14.250	24.920	.000	YTRP 6.0000 IN-ES
(APC035)	DA17.LTPT138.DR82A.(B1OC507F4					ZTRP 6.0000 IN-ES
						SCALE .0150

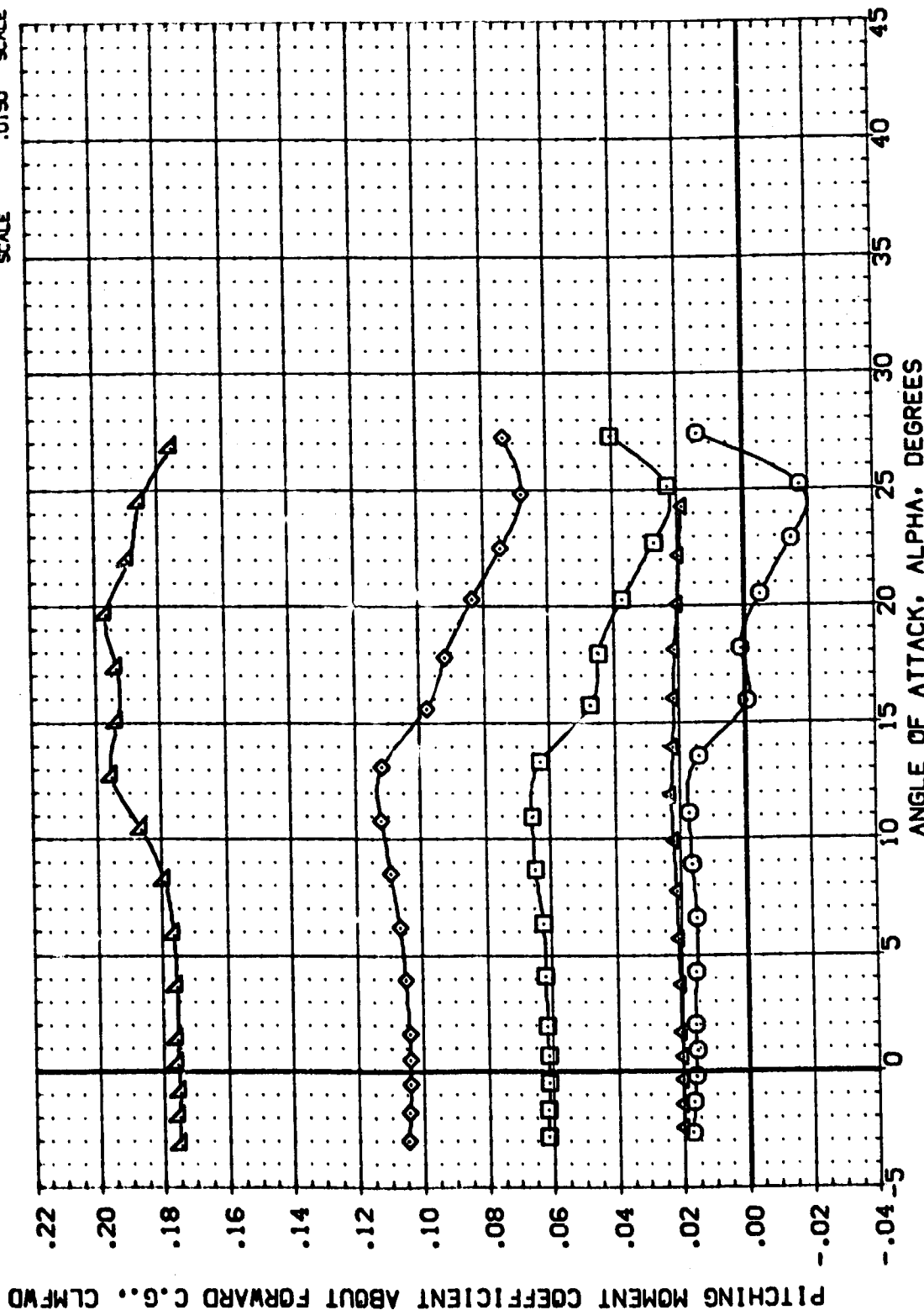


FIGURE 23 0898 ORBITER ELEVON DEFLECTION EFFECTS (NEGATIVE DEFLECTIONS)

(A) RN/L = 10.00



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	MG (V87E18) (VSRS)	ELEVTR	BOFLAP	SPOBRK	RLOOR	REFERENCE INFORMATION
(APP027)	CA17.LTPT138.DR82A.(810C507F4	MG (V87E18) (VSRS)	.000	-14.250	24.920	.000	87.1250
(APP032)	CA17.LTPT138.DR82A.(810C507F4	MG (V87E18) (VSRS)	-5.080	-14.250	24.920	.000	19.9245
(APP035)	CA17.LTPT138.DR82A.(810C507F4	MG (V87E18) (VSRS)	-9.400	-14.250	24.920	.000	14.0502
(APP037)	CA17.LTPT138.DR82A.(810C507F4	MG (V87E18) (VSRS)	-19.200	-14.250	24.920	.000	13.1469
(APP038)	CA17.LTPT138.DR82A.(810C507F4	MG (V87E18) (VSRS)	-24.500	-14.250	24.920	.000	.0000
							SCALE
							.0150
							SCALE
							NO. 45

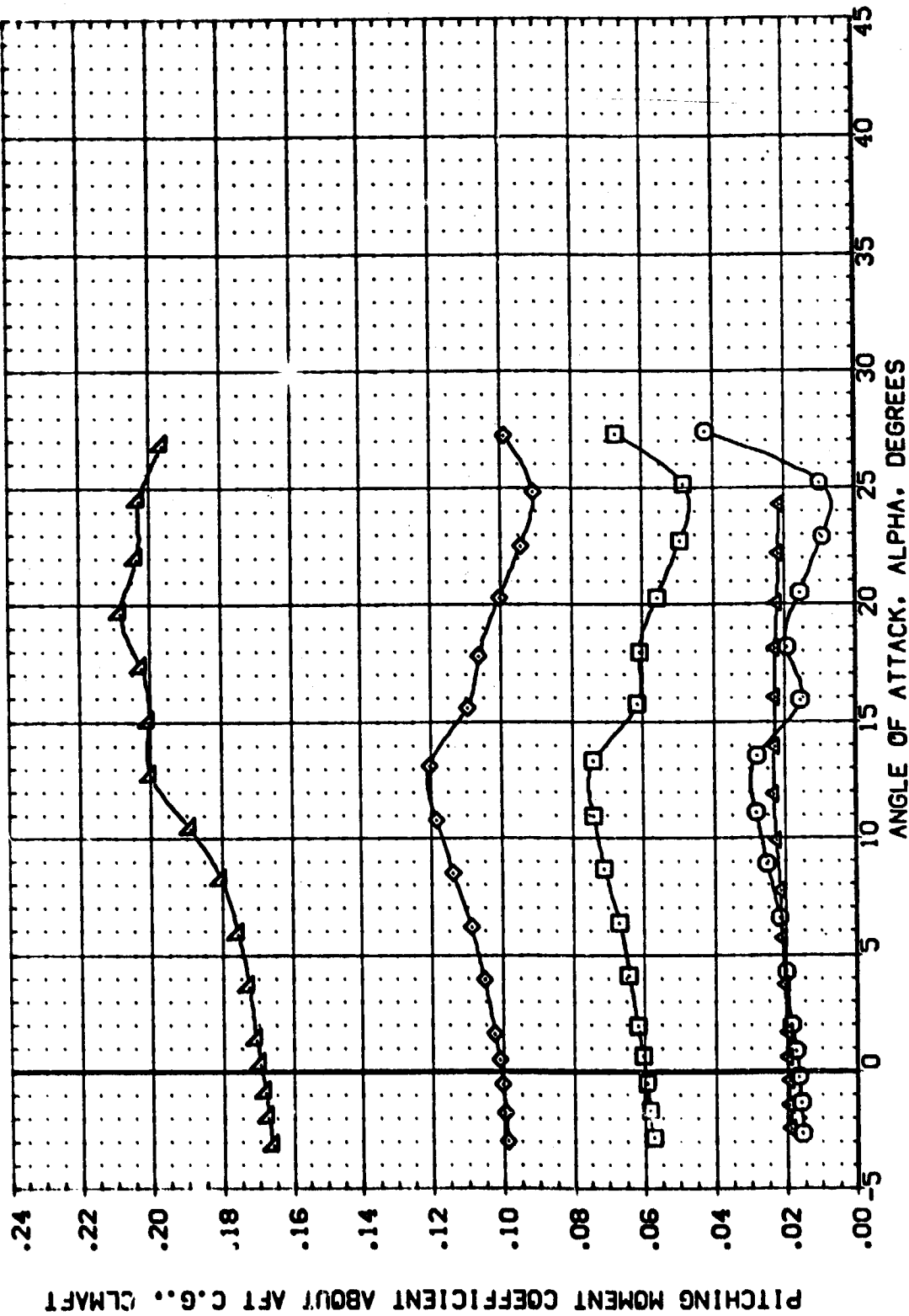


FIGURE 23 089B ORBITER ELEVON DEFLECTION EFFECTS (NEGATIVE DEFLECTIONS)

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APP027)	CA17.LTPT 38.DRB2A.(B)OC507F4	.000	-14.250	24.920	.000	SREF 87.1560 50.14
(APP032)	CA17.LTPT 38.DRB2A.(B)OC507F4	-5.080	-14.250	24.920	.000	LREF 19.9245 INC-ES
(APP036)	CA17.LTPT 38.DRB2A.(B)OC507F4	-9.400	-14.250	24.920	.000	BREF 14.0502 INC-ES
(APP035)	CA17.LTPT 38.DRB2A.(B)OC507F4	-19.200	-14.250	24.920	.000	YREF 13.1409 INC-ES
(APP038)	CA17.LTPT 38.DRB2A.(B)OC507F4	-24.500	-14.250	24.920	.000	ZREF 6.0000 INC-ES
						SCALE .0150

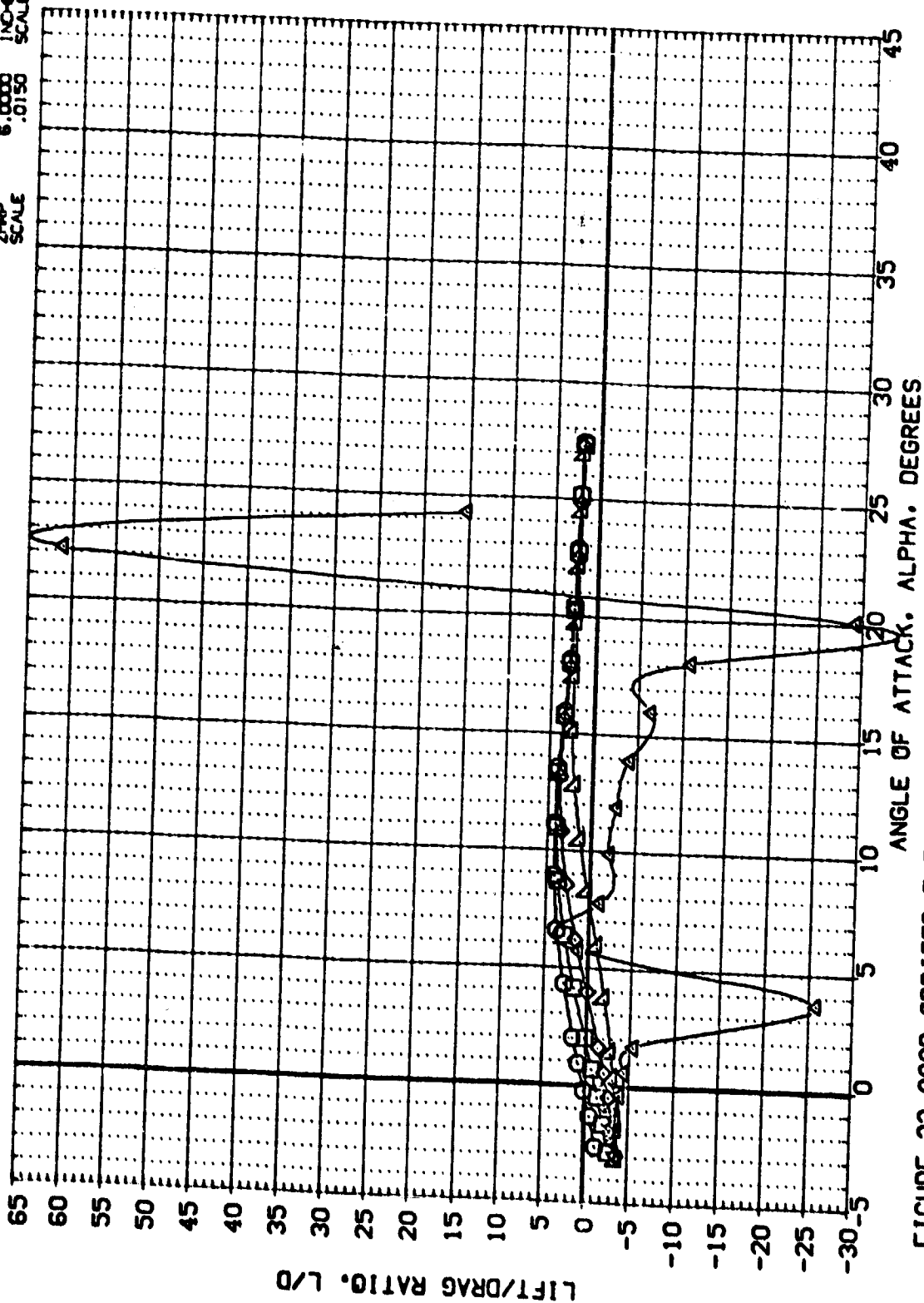


FIGURE 23 0898 ORBITER ELEVON DEFLECTION EFFECTS (NEGATIVE DEFLECTIONS)
(A)RN/L = 10.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBANK	RLODOR	REFERENCE INFORMATION
(APPO27)	□	DA17.1PT138.0R82A.810C507F4	.000	-14.250	24.920	.000	SREF 97.1560 50.1N.
(APPO32)	○	DA17.1PT138.0R82A.810C507F4	-5.000	-14.250	24.920	.000	LREF 19.9245 IN-ES
(APPO35)	△	DA17.1PT138.0R82A.810C507F4	-9.100	-14.250	24.920	.000	BREF 14.0502 IN-ES
(APPO35)	◇	DA17.1PT138.0R82A.810C507F4	-19.200	-14.250	24.920	.000	XREF 13.1469 IN-ES
(APPO38)	×	DA17.1PT138.0R82A.810C507F4	-24.500	-14.250	24.920	.000	YREF 6.0000 IN-ES
							ZREF 6.0000 IN-ES
							SCALE .0150

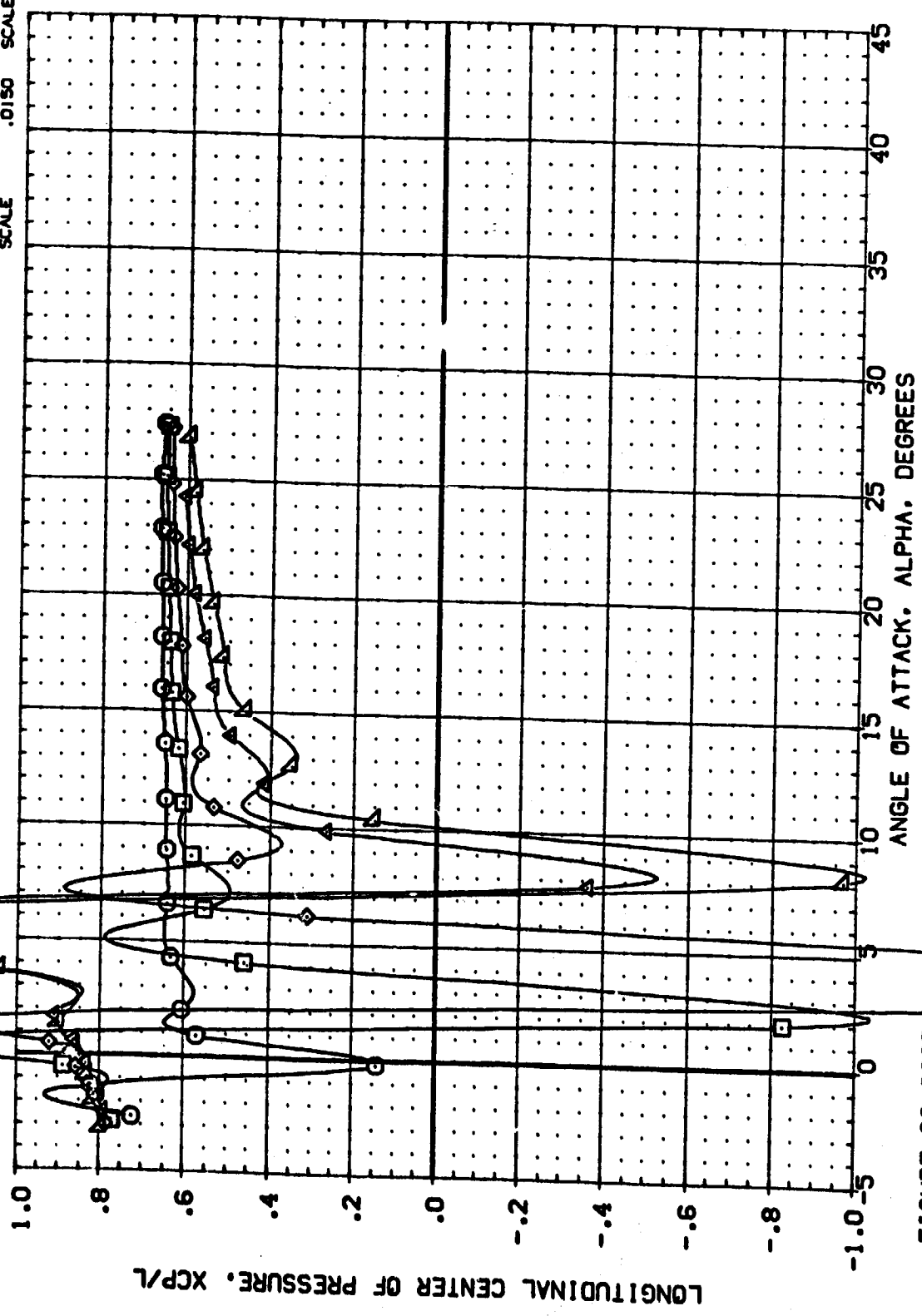


FIGURE 23 0898 ORBITER ELEVON DEFLECTION EFFECTS (NEGATIVE DEFLECTIONS)

(AJRN/L = 10.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(APP027) CA17.LTPT138.CRB2A.(B10C507F4)

(APP032) CA17.LTPT138.CRB2A.(B10C507F4)

(APP036) CA17.LTPT138.CRB2A.(B10C507F4)

(APP036) CA17.LTPT138.CRB2A.(B10C507F4)

(APP036) CA17.LTPT138.CRB2A.(B10C507F4)

ELEVTR BOFLAP SPDRBK RUDDER REFERENCE INFORMATION

SO.IN.

SREF 87.1560 INCHES

LREF 19.9245 INCHES

BREF 14.0502 INCHES

XPRP 13.1469 INCHES

YPRP .0000 INCHES

ZPRP 6.0000 INCHES

SCALE .0150

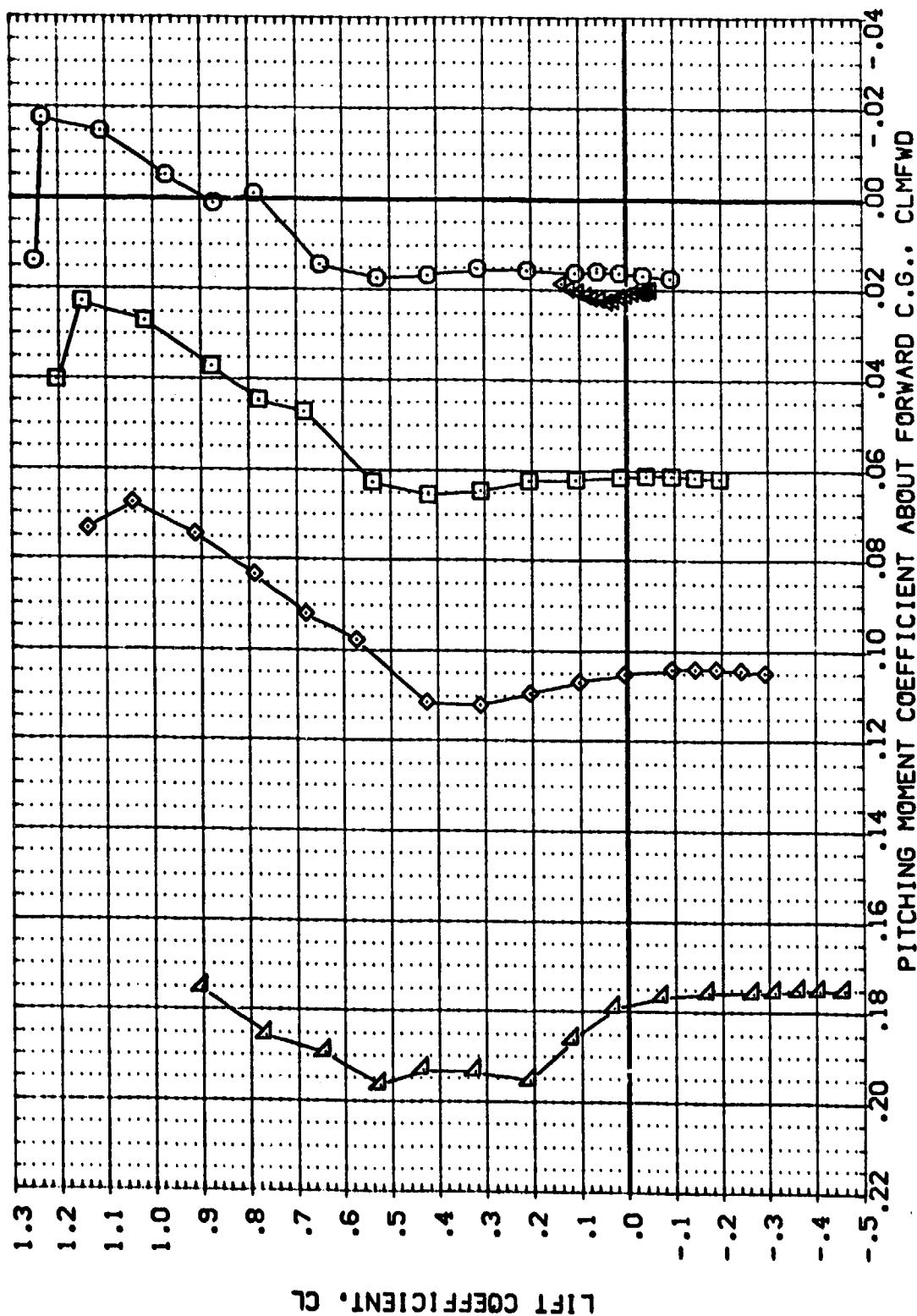


FIGURE 23 089B ORBITER ELEVON DEFLECTION EFFECTS (NEGATIVE DEFLECTIONS)

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APPO27)	DA17.LTPT138.DRB2A.(B1OC507F4	.000	-14.250	24.920	.000	SREF 87.1560 SQ.IN
(APPO32)	DA17.LTPT138.DRB2A.(B1OC507F4	-5.080	-14.250	24.920	.000	LREF 19.5245 INCHES
(APPO36)	DA17.LTPT138.DRB2A.(B1OC507F4	-9.400	-14.250	24.920	.000	BREF 14.0502 INCHES
(APPO35)	DA17.LTPT138.DRB2A.(B1OC507F4	-19.200	-14.250	24.920	.000	XREF 13.1469 INCHES
(APPO38)	DA17.LTPT138.DRB2A.(B1OC507F4	-24.500	-14.250	24.920	.000	YREF 6.0000 INCHES
						ZREF 6.0000 INCHES
						SCALE .0150

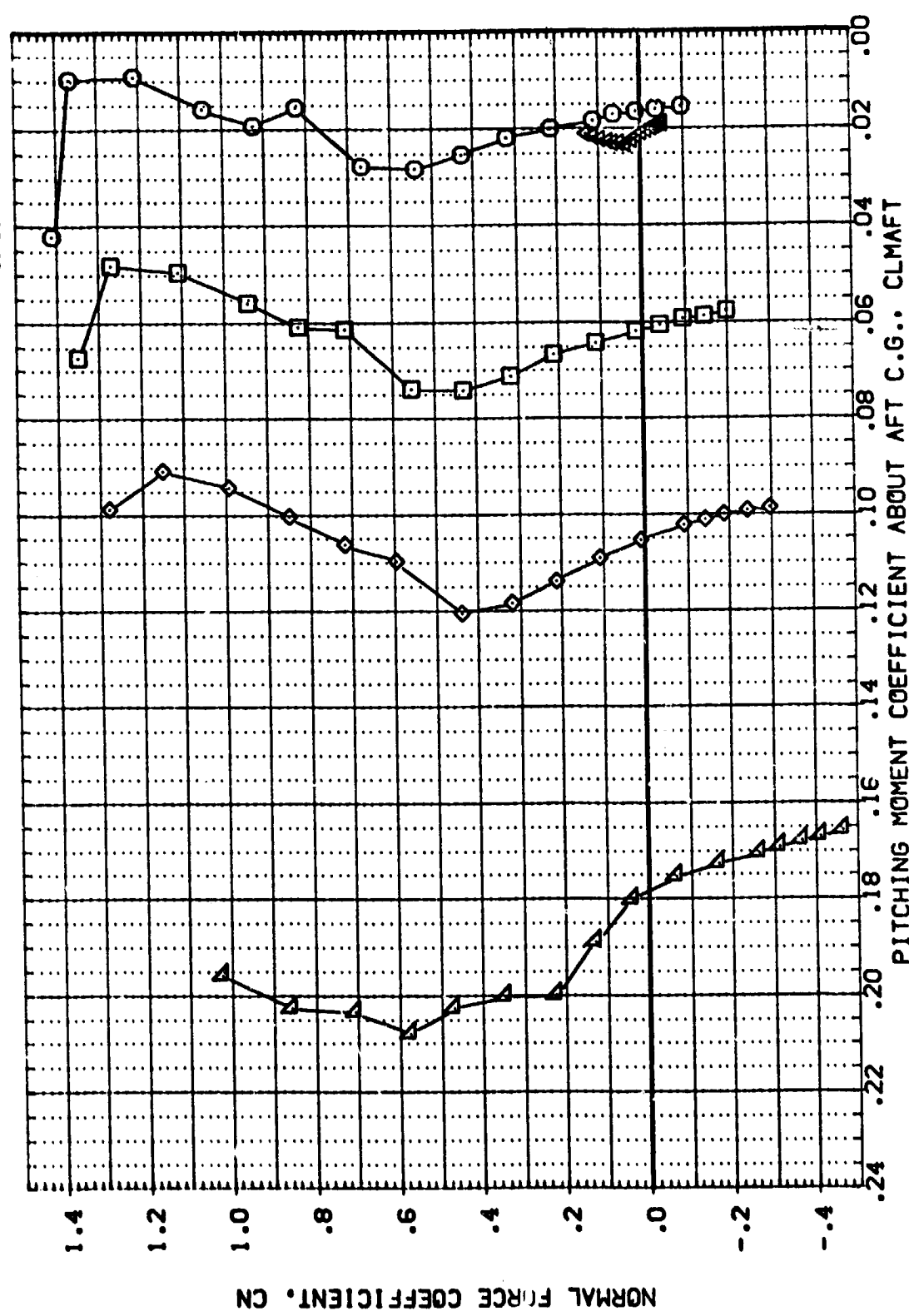


FIGURE 23 0898 ORBITER ELEVON DEFLECTION EFFECTS (NEGATIVE DEFLECTIONS)

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	M3(V87E18)(VSR3)	ELEVTR	BOFLAP	SPCBPK	RUDDER	REFERENCE INFORMATION
(AP027)	CA17.LTPT138.082A.(810CS07F4		.000	-14.250	24.920	.000	SREF 87.1560 SQ.IN.
(AP032)	CA17.LTPT138.082A.(810CS07F4		-5.080	-14.250	24.920	.000	LREF 19.9245 IN.-ES
(AP033)	CA17.LTPT138.082A.(810CS07F4		-8.400	-14.250	24.920	.000	BREF 14.0502 IN.-ES
(AP035)	CA17.LTPT138.082A.(810CS07F4		-19.200	-14.250	24.920	.000	XREF 13.1468 IN.-ES
(AP038)	CA17.LTPT138.082A.(810CS07F4		-24.500	-14.250	24.920	.000	YREF 6.0000 IN.-ES
							ZREF 6.0150 SCALE

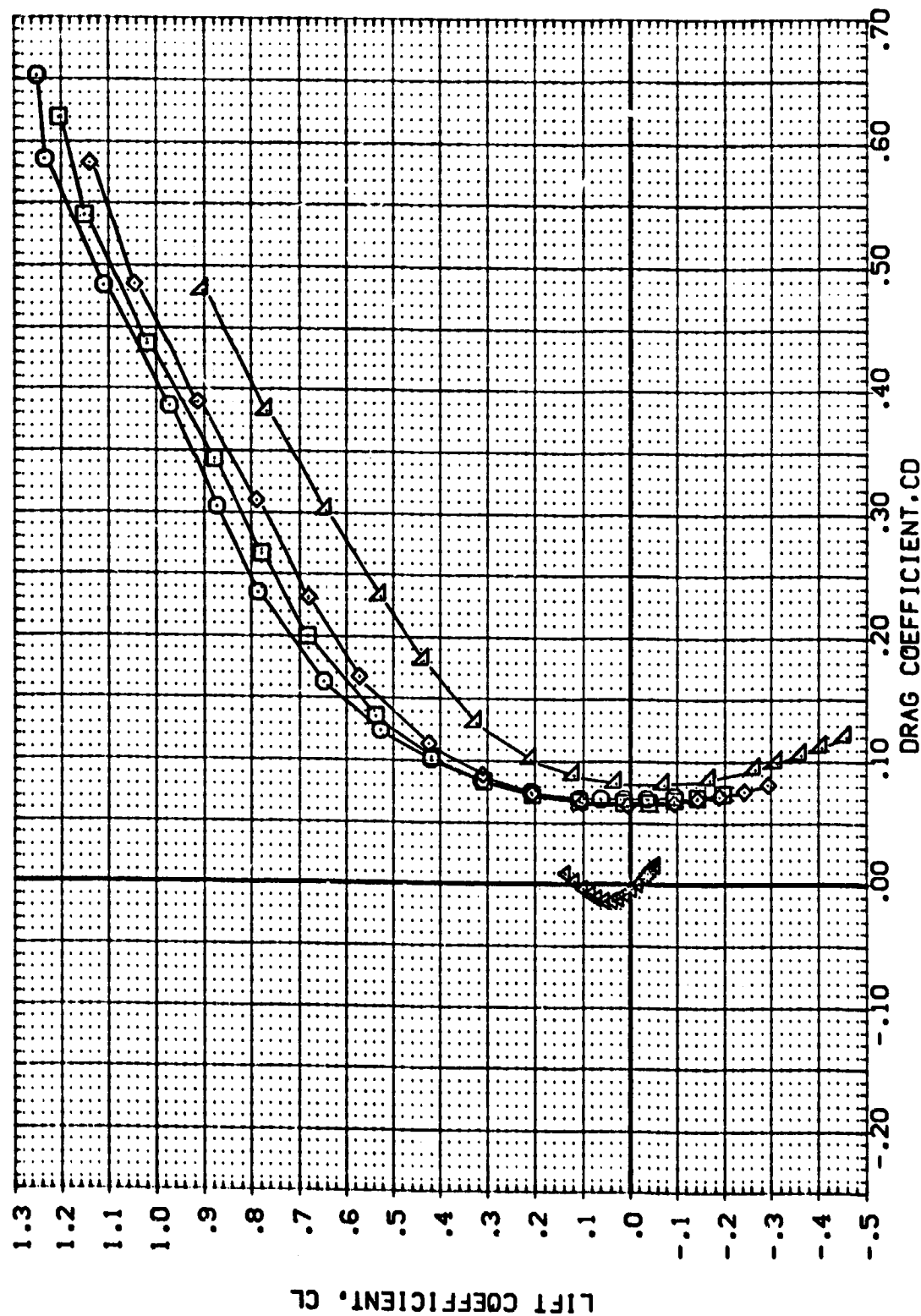


FIGURE 23 089B ORBITER ELEVON DEFLECTION EFFECTS (NEGATIVE DEFLECTIONS)

(A)RN/L = 10.00



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPDBRK	RJODER	REFERENCE INFORMATION	SO. IN.
(RPP027)	DA17.LTPT138.0R82A.(B10C507F4	.000	-14.250	24.920	.000	SREF	87.1560
(RPP032)	DA17.LTPT138.0R82A.(B10C507F4	-5.080	-14.250	24.920	.000	LREF	19.9245
(RPP035)	DA17.LTPT138.0R82A.(B10C507F4	-9.400	-14.250	24.920	.000	BREF	14.0502
(RPP035)	DA17.LTPT138.0R82A.(B10C507F4	-19.200	-14.250	24.920	.000	XREF	13.1465
(RPP038)	DA17.LTPT138.0R82A.(B10C507F4	-24.500	-14.250	24.920	.000	YREF	6.0000
						ZREF	6.0000
						SCALE	.0150

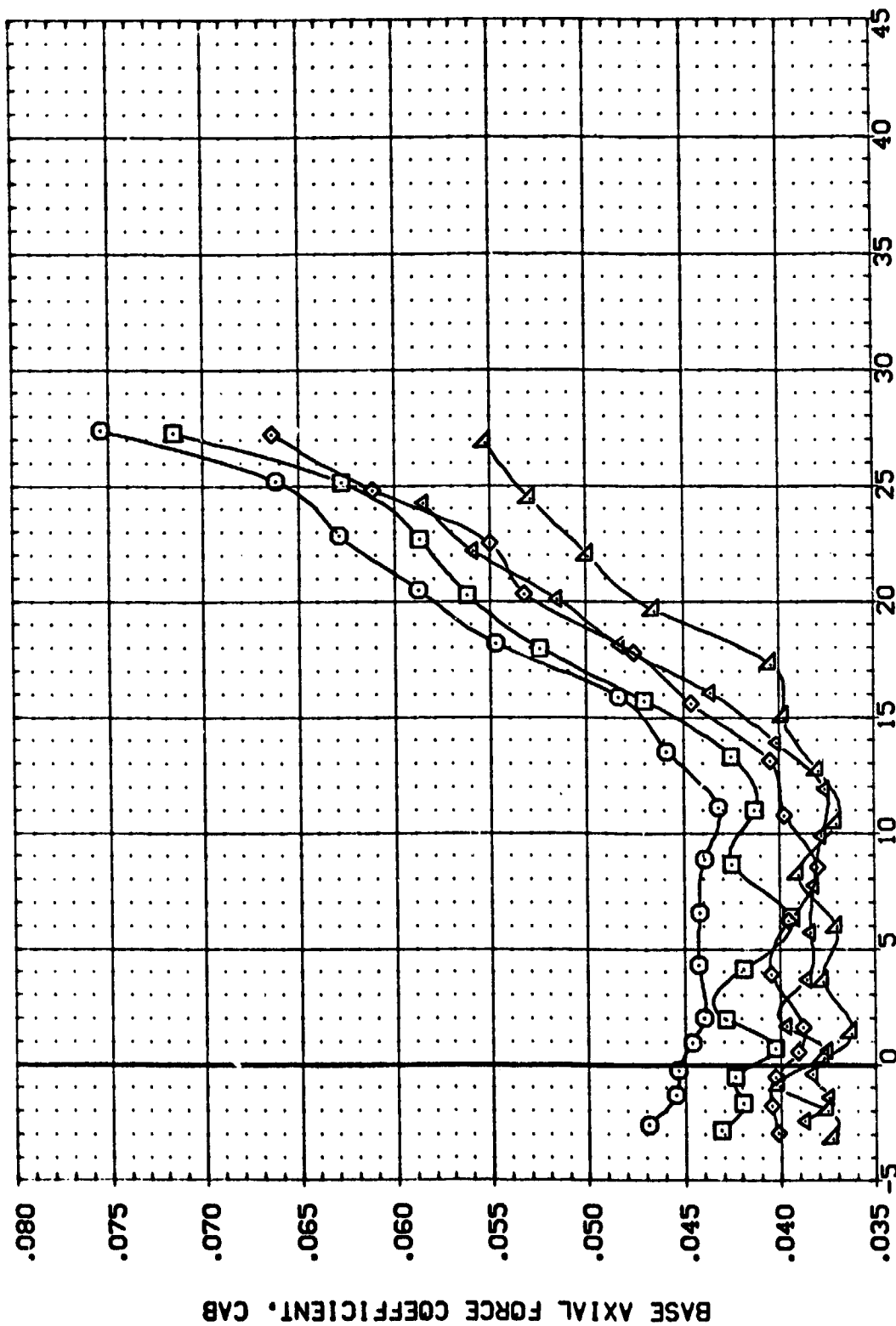


FIGURE 23 089B ORBITER ELEVON DEFLECTION EFFECTS (NEGATIVE DEFLECTIONS)

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APPO29)	GA17.LTPT138.0882A.(810C507F4	9.800	-14.250	24.920	.000	SREF 87.1560 SQ. IN.
(APPO30)	GA17.LTPT138.0882A.(810C507F4	5.150	-14.250	24.920	.000	LREF 19.9245 INCHES
(APPO27)	GA17.LTPT138.0882A.(810C507F4	.000	-14.250	24.920	.000	BREF 14.0502 INCHES
						YREF 13.1459 INCHES
						ZREF 6.0000 INCHES
						SCALE .0150

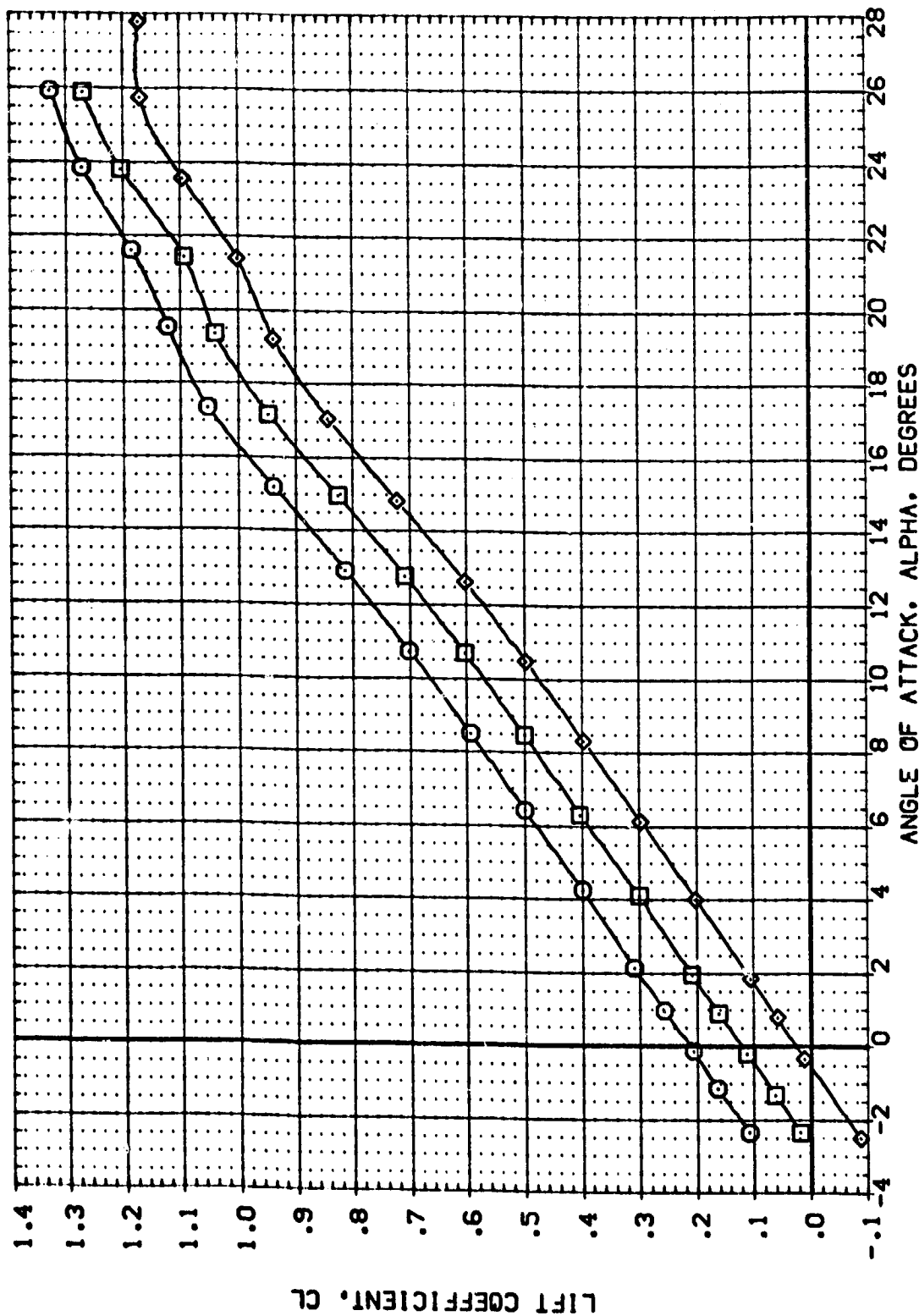


FIGURE 24 089B ORBITER ELEVON DEFLECTION EFFECTS (POSITIVE DEFLECTIONS)

(A)RN/L = 4.70



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBARK	RUDDER	REFERENCE INFORMATION
(APPC28)	DA17.LTPT138.0882A.(B10C507F4	9.800	-14.250	24.920	.000	SREF 87.1560 SO IN.
(APPC30)	DA17.LTPT138.0882A.(B10C507F4	5.150	-14.250	24.920	.000	LREF 19.9245 INCHES
(APPC27)	DA17.LTPT139.0882A.(B10C507F4	.000	-14.250	24.920	.000	BREF 14.0502 INCHES
						XMRP 13.1469 INCHES
						YMRP .0000 INCHES
						ZMRP .0000 INCHES
						SCALE .0150 SCALE

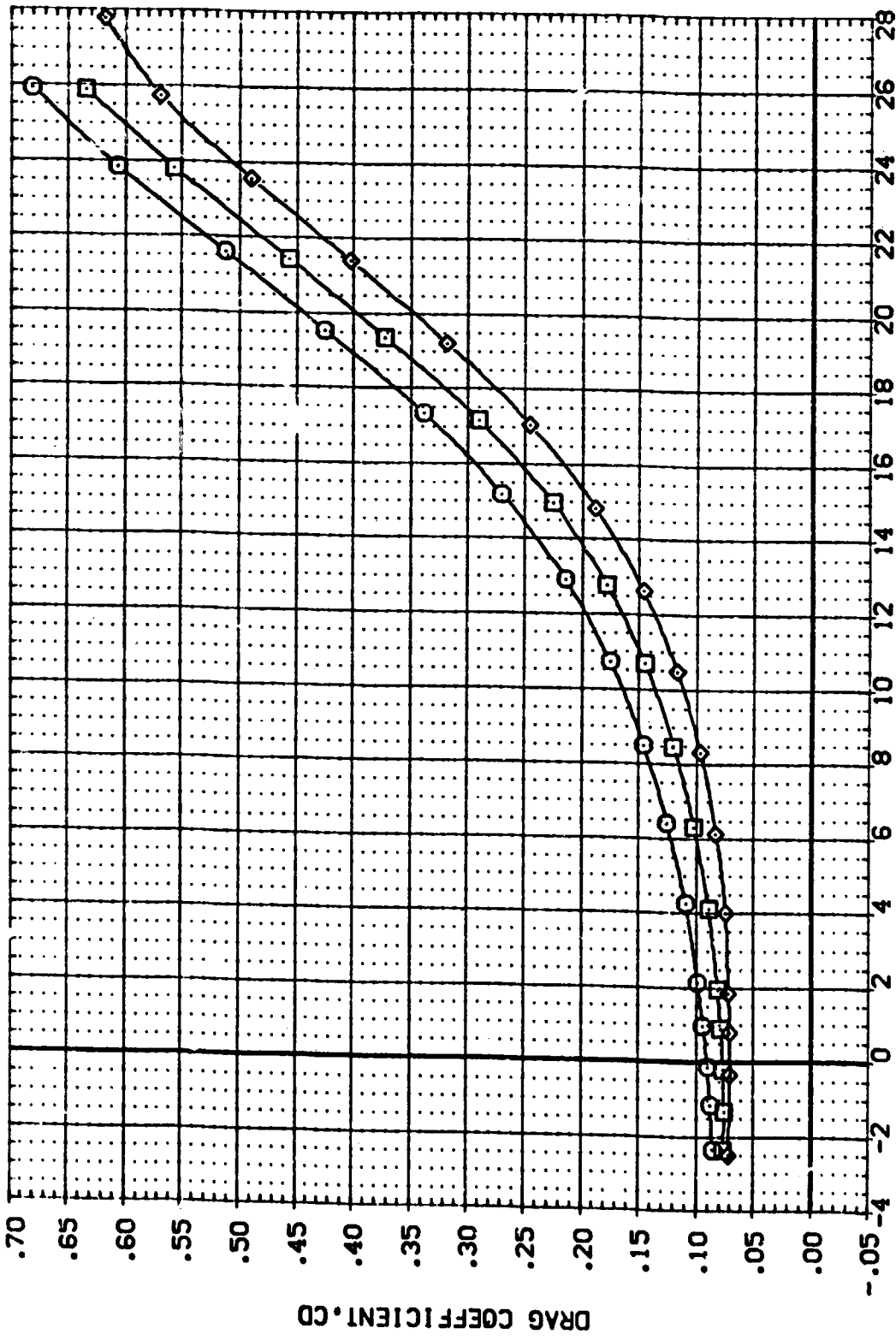


FIGURE 24 089B ORBITER ELEVON DEFLECTION EFFECTS (POSITIVE DEFLECTIONS)

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APP028)	DA17.LTPT138.082A.(810C507F4	9.800	-14.250	24.920	.000	SREF 87.1560 50.1N.
(APP30)	DA17.LTPT138.082A.(810C507F4	5.150	-14.250	24.920	.000	LREF 19.9245 INC-ES
(APP027)	DA17.LTPT138.082A.(810C507F4	.000	-14.250	24.920	.000	BREF 4.0502 INC-ES
						XREF 13.1469 INC-ES
						YREF .0000 INC-ES
						ZREF 6.0000 INC-ES
						SCALE .0150 SCALE

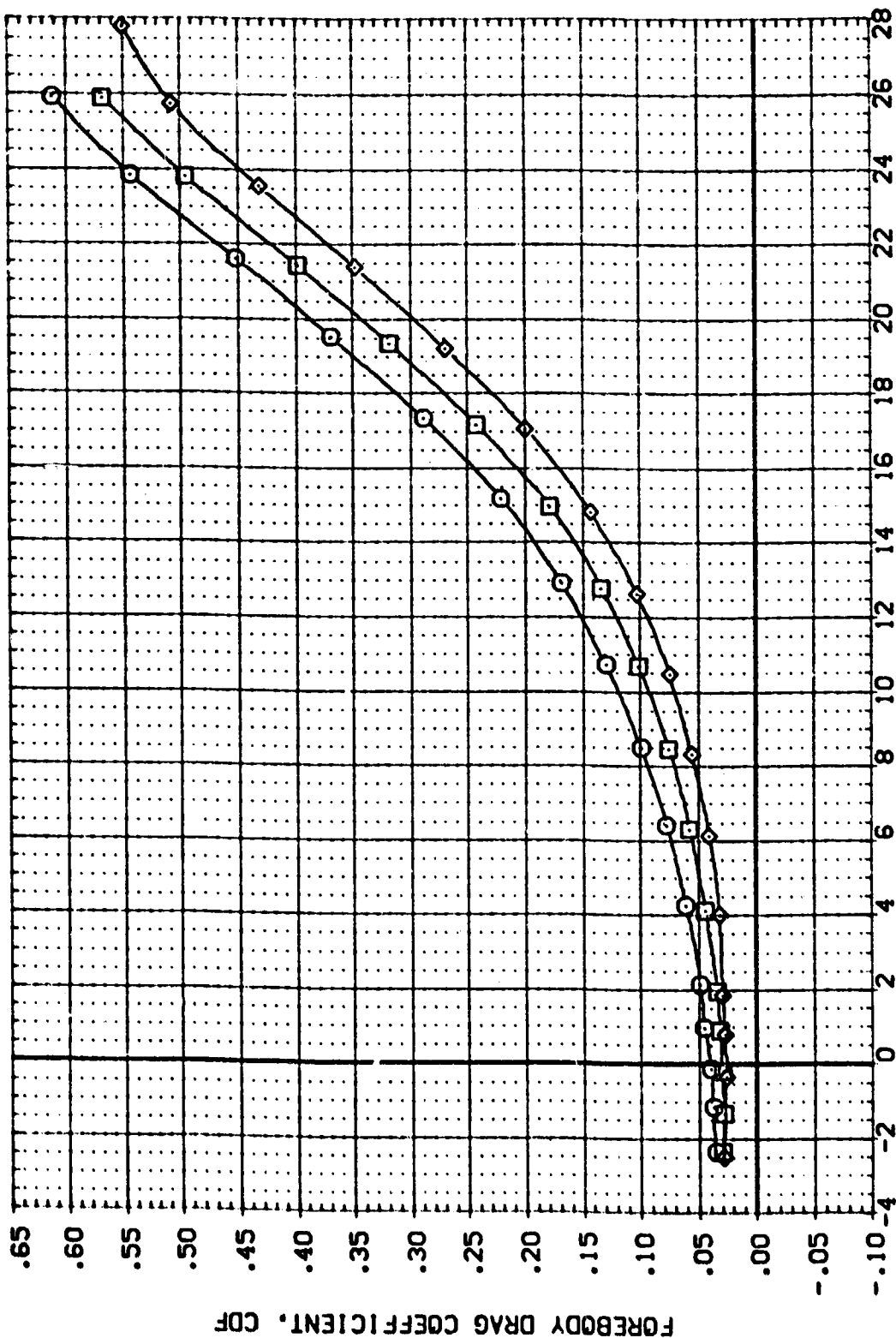


FIGURE 24 0898 ORBITER ELEVON DEFLECTION EFFECTS (POSITIVE DEFLECTIONS)

(AJRN/L = 4.70



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOSBRK	RUDER	REFERENCE INFORMATION
(APC029)	0A17, LTP1, 38, 0R82A, (B10C507F4)	9.800	-14.250	24.920	.000	SPREF 87.1560 SO, IN.
(APC030)	0A17, LTP1, 38, 0R82A, (B10C507F4)	5.150	-14.250	24.920	.000	LREF 19.9245 INC-ES
(APC027)	0A17, LTP1, 38, 0R82A, (B10C507F4)	.000	-14.250	24.920	.000	BRF 14.0502 INC-ES
						YTRP 13.1469 INC-ES
						ZTRP 6.0000 INC-ES
						SCALE .0150 INC-ES

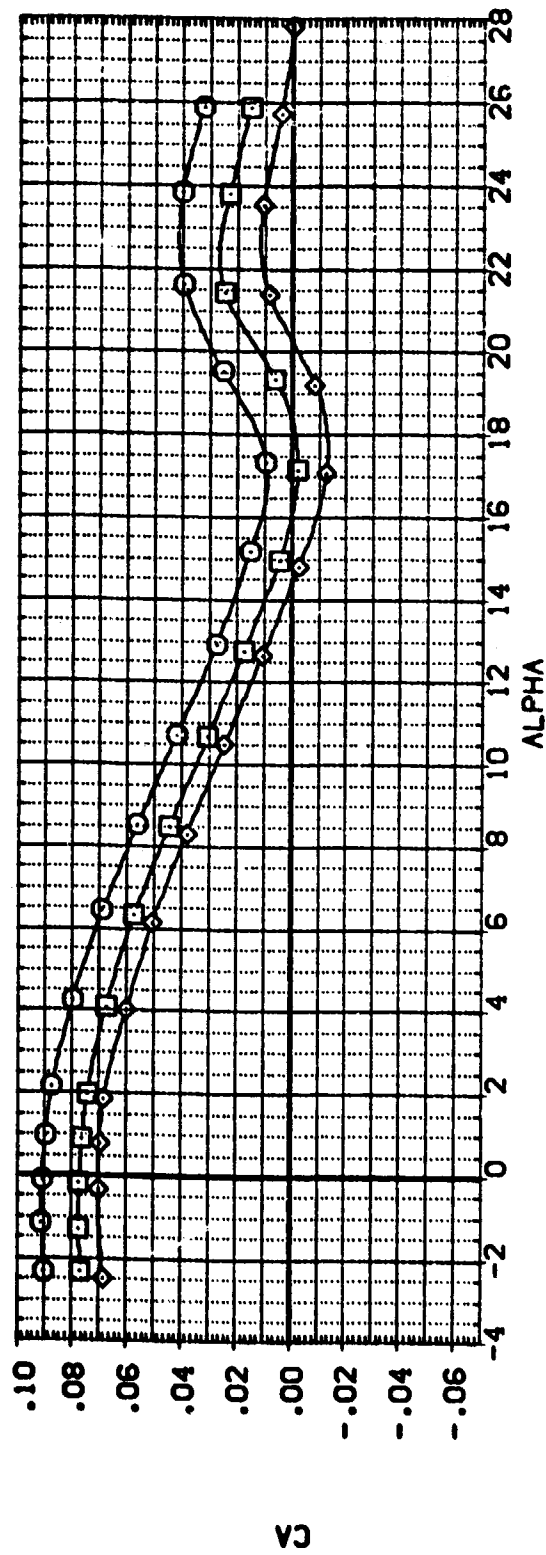
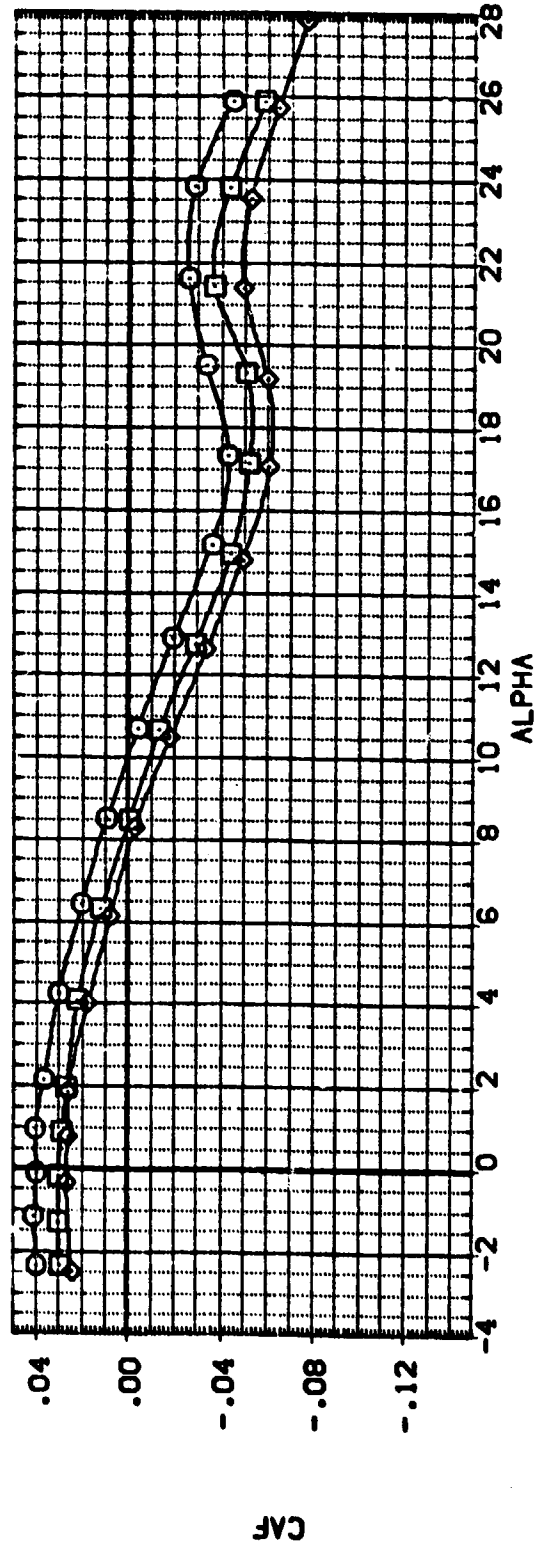


FIGURE 24 0898 ORBITER ELEVON DEFLECTION EFFECTS (POSITIVE DEFLECTIONS)

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPDGRK	RUDDER	REFERENCE INFORMATION
(APP028)	CA17.LTPT138.082A.(810C507F4	9.000	-14.250	24.920	.000	SREF 87.1560 50. IN.
(APP030)	CA17.LTPT138.082A.(810C507F4	5.130	-14.250	24.920	.000	LREF 19.5245 NO-ES
(APP027)	CA17.LTPT138.082A.(810C507F4	.000	-14.250	24.920	.000	BREF 14.0502 NO-ES
						XREF 13.1468 NO-ES
						YREF .0000 NO-ES
						ZREF 6.0000 NO-ES
						SCALE .0150

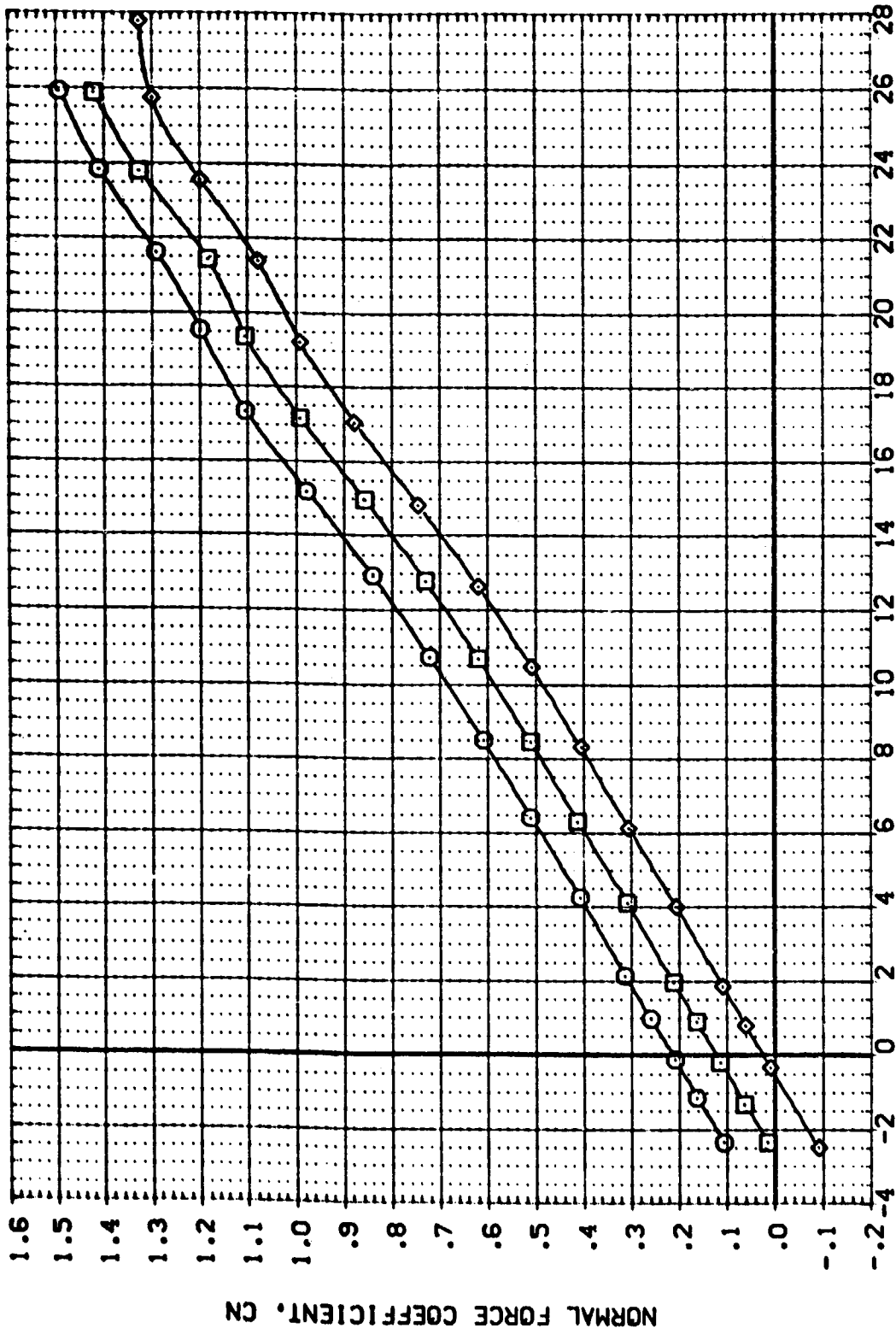


FIGURE 24 089B ORBITER ELEVON DEFLECTION EFFECTS (POSITIVE DEFLECTIONS)

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPORBNK	RUDDER	REFERENCE INFORMATION
(APPC28)	DA17.LTPT138.0882A.(B10C507F4	9.800	-14.250	24.920	.000	SREF 87.1560 50.14
(APPC30)	DA17.LTPT138.0882A.(B10C507F4	5.150	-14.250	24.920	.000	LREF 19.5245 10.05
(APPC27)	DA17.LTPT138.0882A.(B10C507F4	.000	-14.250	24.920	.000	BRREF 14.0502 10.05
						YTRP 13.1469 10.05
						ZTRP 6.0000 10.05
						SCALE .0150

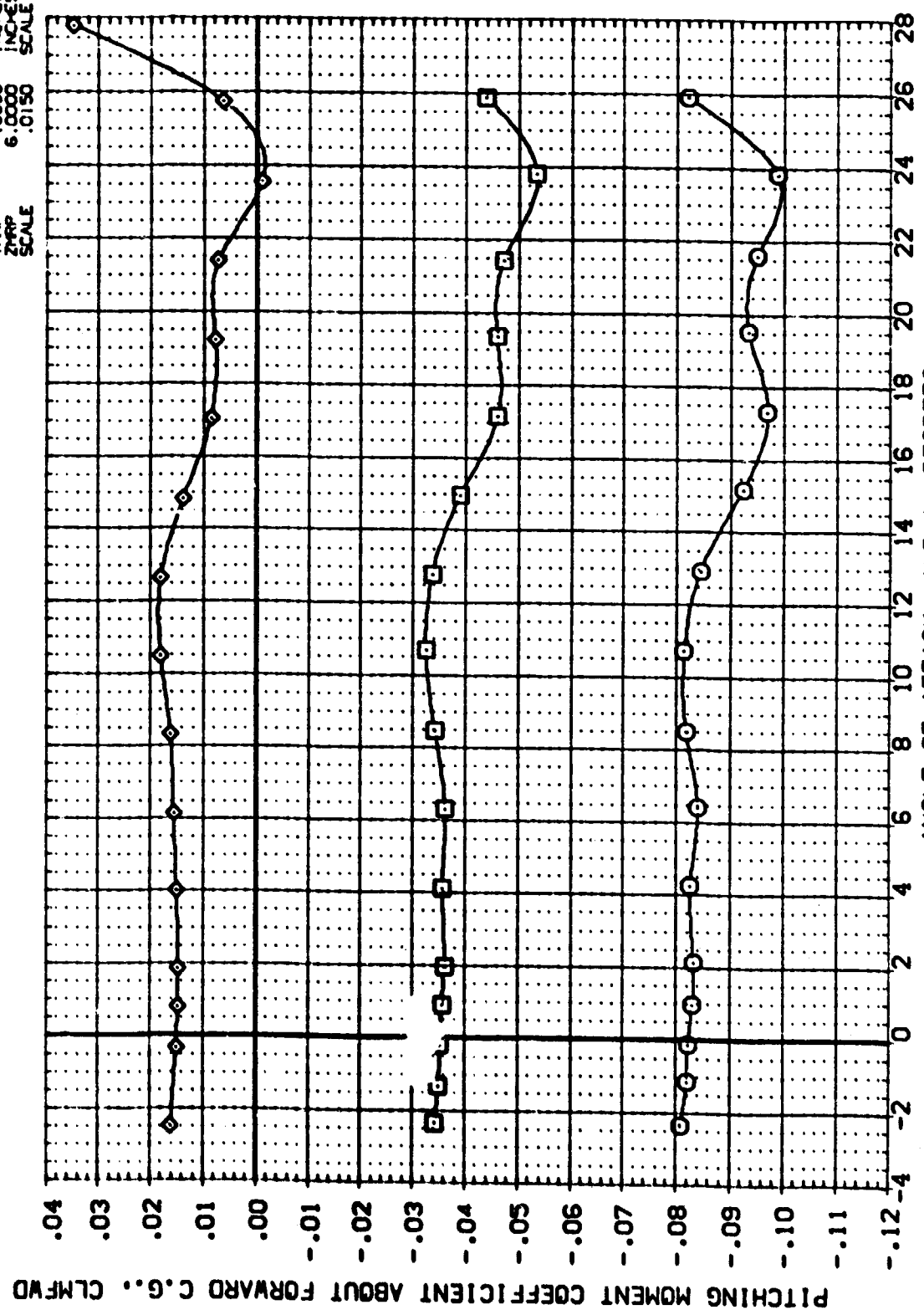


FIGURE 24 0898 ORBITER ELEVON DEFLECTION EFFECTS (POSITIVE DEFLECTIONS)

(A)RN/L = 4.70

DATA SET SYMBOL: CA17.LTPT138.CR82A.(B10C507F4)
 (APP029) CA17.LTPT138.CR82A.(B10C507F4) M3(V87E18)(V59S)
 (APP030) CA17.LTPT138.CR82A.(B10C507F4) M3(V87E18)(V59S)
 (APP031) CA17.LTPT138.CR82A.(B10C507F4) M3(V87E18)(V59S)
 (APP032) CA17.LTPT138.CR82A.(B10C507F4) M3(V87E18)(V59S)

ELEVTR: 9.800
 5.150
 .000

BOFLAP: -14.250
 -14.250
 -14.250

SPOBRK: 24.920
 24.920
 24.920

RUDDER: .000
 .000
 .000

REFERENCE INFORMATION:
 SREF: 87.1560 SO IN.
 LREF: 19.9245 INCHES
 BREF: 14.0502 INCHES
 YMRP: 13.1469 INCHES
 ZMRP: .0000 INCHES
 SCALE: 6.0000 INCHES
 .0150 SCALE

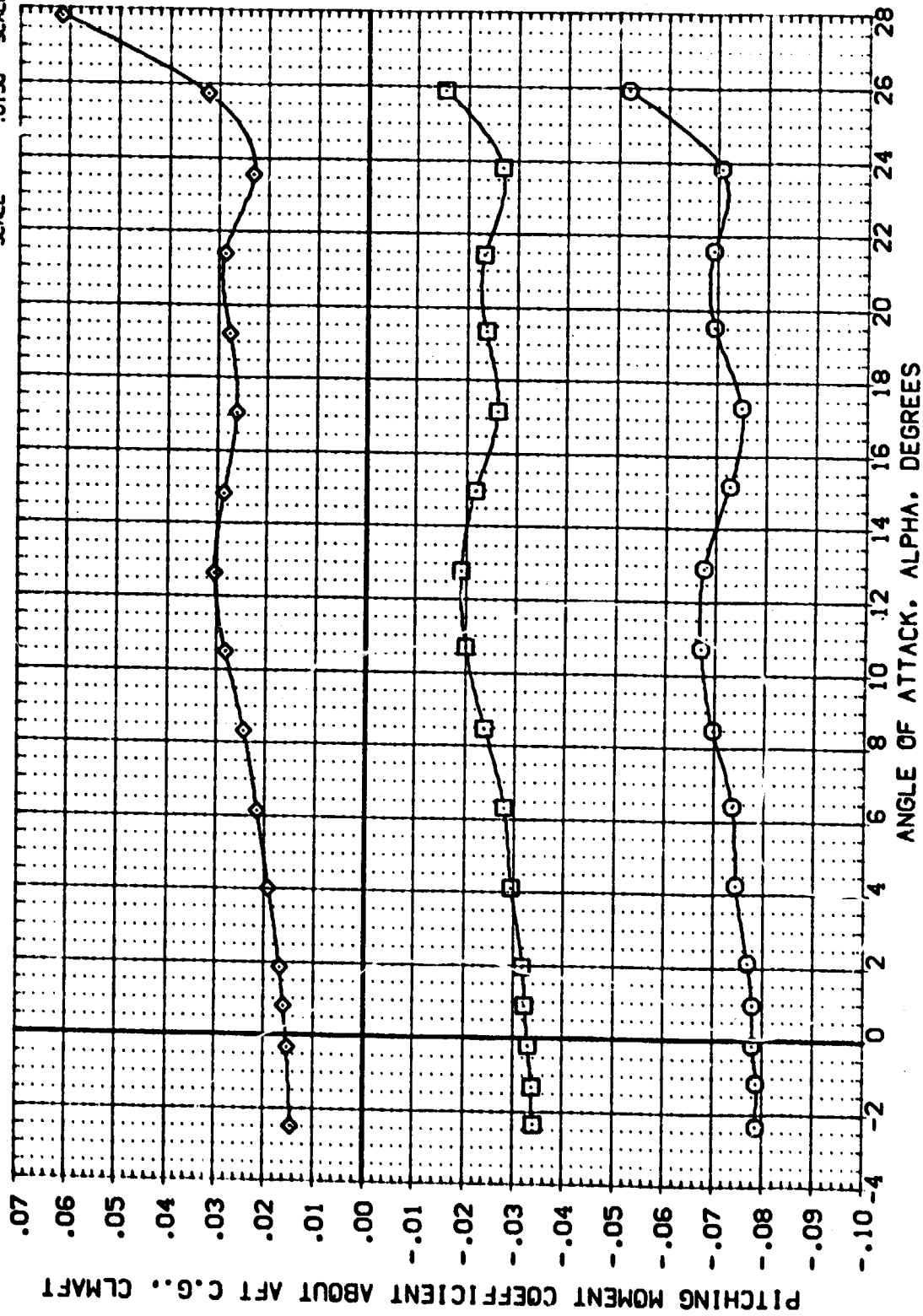


FIGURE 24 0898 ORBITER ELEVON DEFLECTION EFFECTS (POSITIVE DEFLECTIONS)

(A)RN/L = 4.7C



DATA SET SYMBOL CONFIGURATION DESCRIPTION ELEVTR BOFLAP SPDRBK RUDDER REFERENCE INFORMATION

(APPC29)	CA17.LTPT138.ORB2A.(B)DC507F4	9.800	-14.250	24.920	.000	SREF 87.1560 SO.IN.
(APPC30)	CA17.LTPT138.ORB2A.(B)DC507F4	5.150	-14.250	24.920	.000	LREF 19.9245 IN-ES
(APPC27)	CA17.LTPT138.ORB2A.(B)DC507F4	.000	-14.250	24.920	.000	BREF 14.0502 IN-ES
						YMRP 13.1469 IN-ES
						ZMRP 6.0000 IN-ES
						SCALE .0150 IN-ES

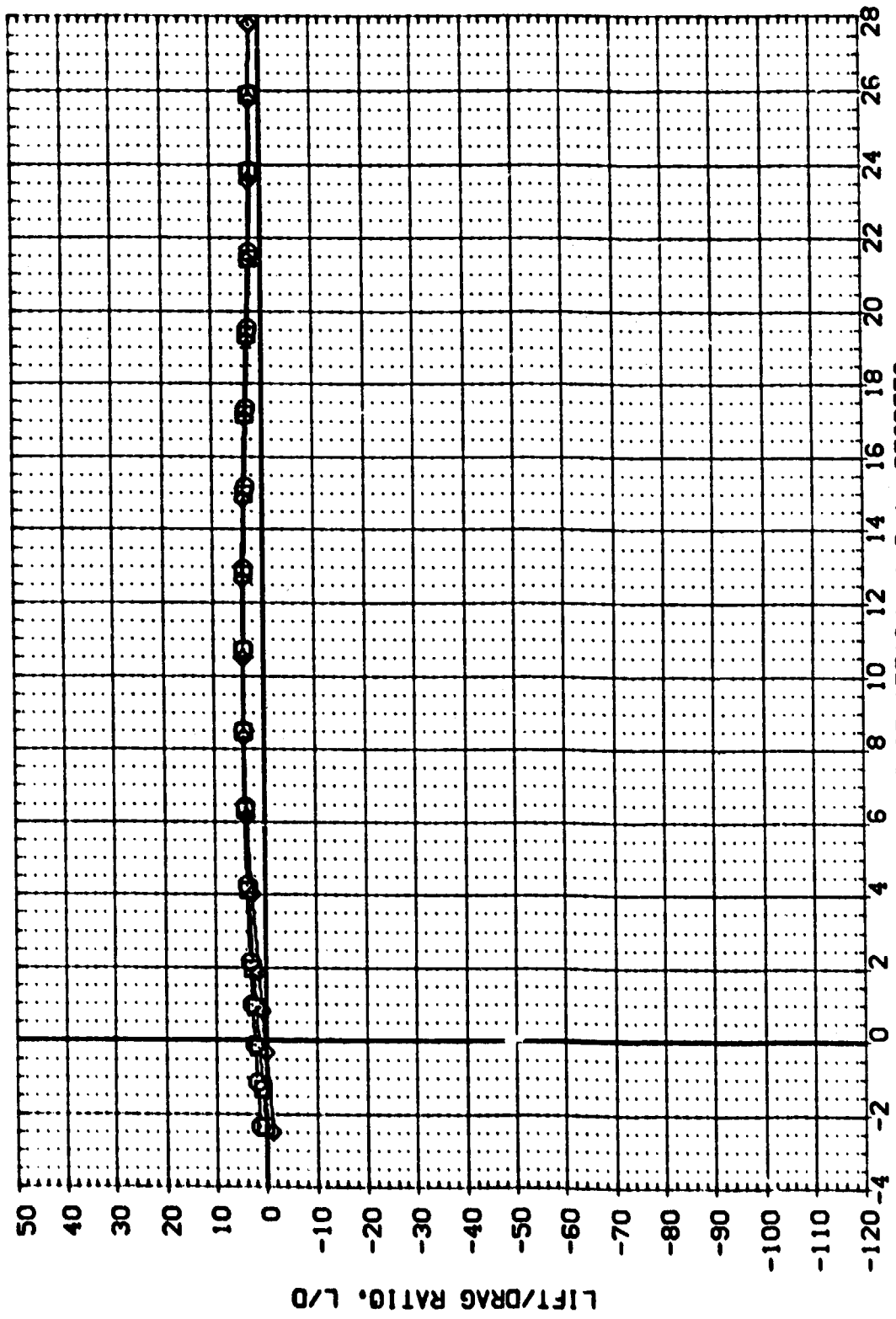


FIGURE 24 089B ORBITER ELEVON DEFLECTION EFFECTS (POSITIVE DEFLECTIONS)

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	M31(V87E18)(V5R5)	ELEVTR	BOFLAP	SPDBRK	RUDDER	REFERENCE INFORMATION
(APP029)	DA17.LTPT138.DRB2A.(B1OC507F4	M31(V87E18)(V5R5)	9.800	-14.250	24.920	.000	SREF 87.1560 90.10
(APP030)	DA17.LTPT138.DRB2A.(B1OC507F4	M31(V87E18)(V5R5)	5.150	-14.250	24.920	.000	LREF 19.9245 10.00
(APP027)	DA17.LTPT138.DRB2A.(B1OC507F4	M31(V87E18)(V5R5)	.000	-14.250	24.920	.000	BREF 14.0502 10.00
							YREF 13.1469 10.00
							ZREF .0000 10.00
							SCALE .0150 10.00



FIGURE 24 089B ORBITER ELEVON DEFLECTION EFFECTS (POSITIVE DEFLECTIONS)

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	PG1 (V87E18) (V585)	ELEVTR	BDFLAP	SPODBK	RUDDER	REFERENCE INFORMATION
(AP0229)	0A17.L1PT138.0882A. (810C307F4)	PG2 (V87E18) (V585)	9.800	-14.250	24.920	.000	SREF 87.1860 SQ. IN.
(AP0330)	0A17.L1PT138.0882A. (810C307F4)	PG3 (V87E18) (V585)	5.150	-14.250	24.920	.000	LREF 12.9245 INCHES
(AP0277)	0A17.L1PT138.0882A. (810C307F4)	PG4 (V87E18) (V585)	.000	-14.250	24.920	.000	BREF 13.1469 INCHES
							XTRP .0000 INCHES
							YTRP 6.0000 INCHES
							ZTRP .0150 INCHES
							SCALE

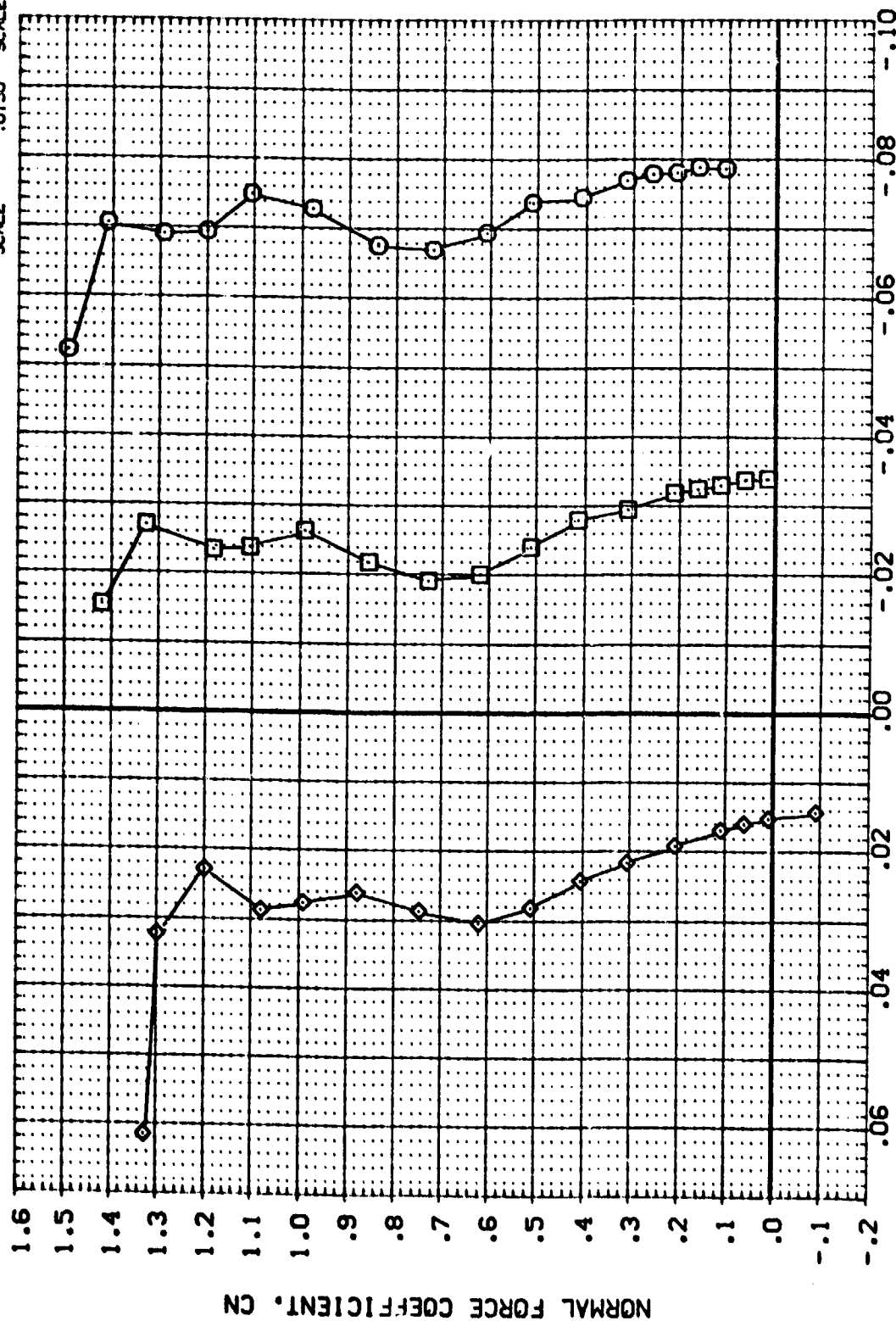


FIGURE 24 0898 ORBITER ELEVON DEFLECTION EFFECTS (POSITIVE DEFLECTIONS)

(A)RN/L = 4.70



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BDFLAP	SPDRBK	RUDDER	REFERENCE INFORMATION
(APPO29)	DA17.LTPT138.DR82A.(810CS07F4	9.800	-14.250	24.920	.000	WREY 87.1560 50. IN.
(APPO30)	DA17.LTPT138.DR82A.(810CS07F4	5.150	-14.250	24.920	.000	LAZC 19.9245 INCHES
(APPO27)	DA17.LTPT138.DR82A.(810CS07F4	.000	-14.250	24.920	.000	BREY 14.0502 INCHES
						WTRP 13.1469 INCHES
						ZTRP 6.0000 INCHES
						SCALE .0150

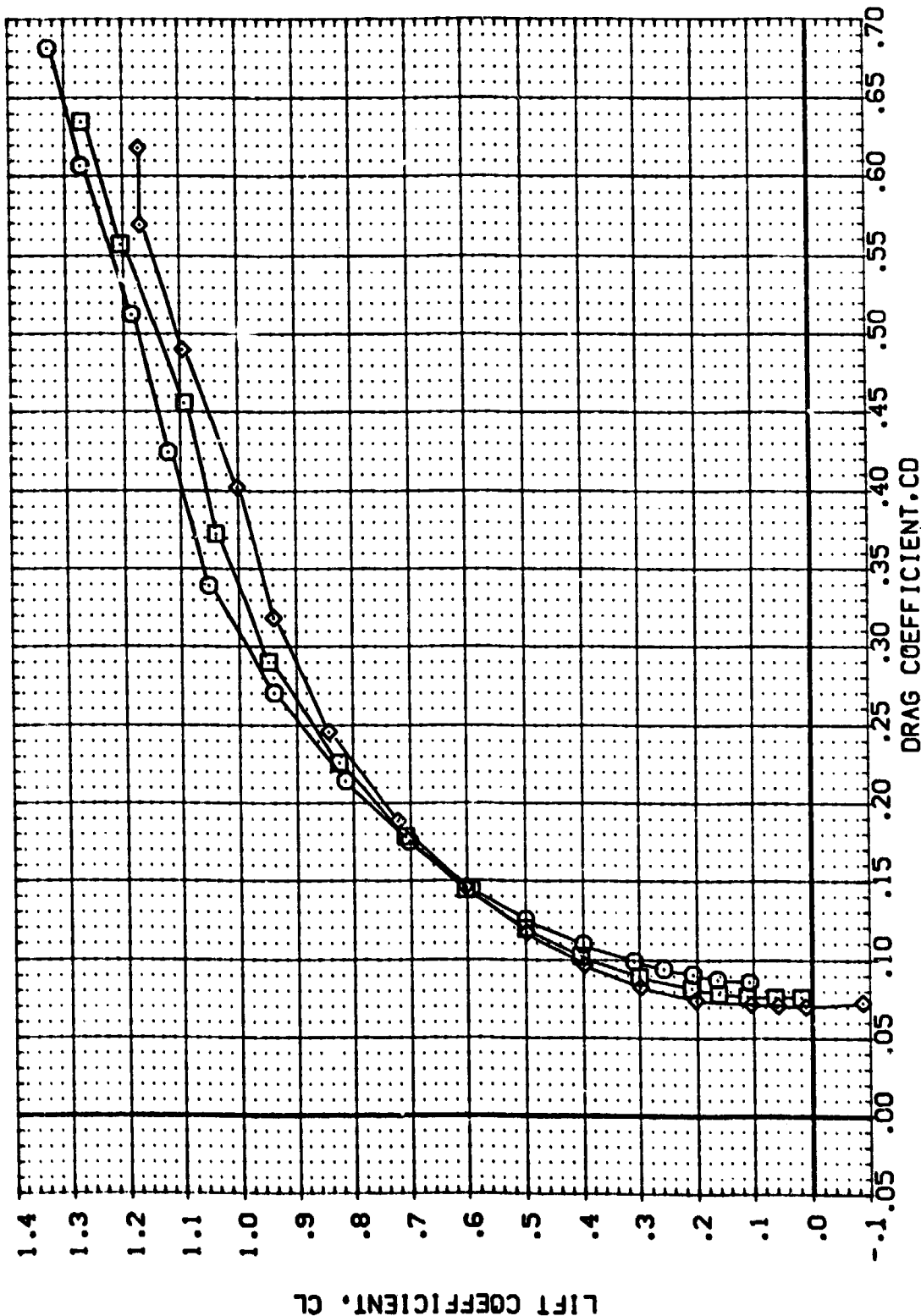


FIGURE 24 089B ORBITER ELEVON DEFLECTION EFFECTS (POSITIVE DEFLECTIONS)

(A)RN/L = 4.70

DATA SET SYMBOL: (BPP028) (BPP030) (BPP027)

CONFIGURATION DESCRIPTION: DA17.LTPT138.DR82A.(810C507F4) DA17.LTPT138.DR82A.(810C507F4) DA17.LTPT138.DR82A.(810C507F4)

ELEVTR: 9.800 5.150 .000

BOFLAP: -14.250 -14.250 -14.250

SPOBRK: 24.920 24.920 24.920

RUDDER: .000 .000 .000

REFERENCE INFORMATION: SREF 87.1560 50. IN. LREF 19.9245 INCHES BREF 14.0502 INCHES XTRP 13.1469 INCHES YTRP .0000 INCHES ZTRP 6.0000 INCHES SCALE .0150

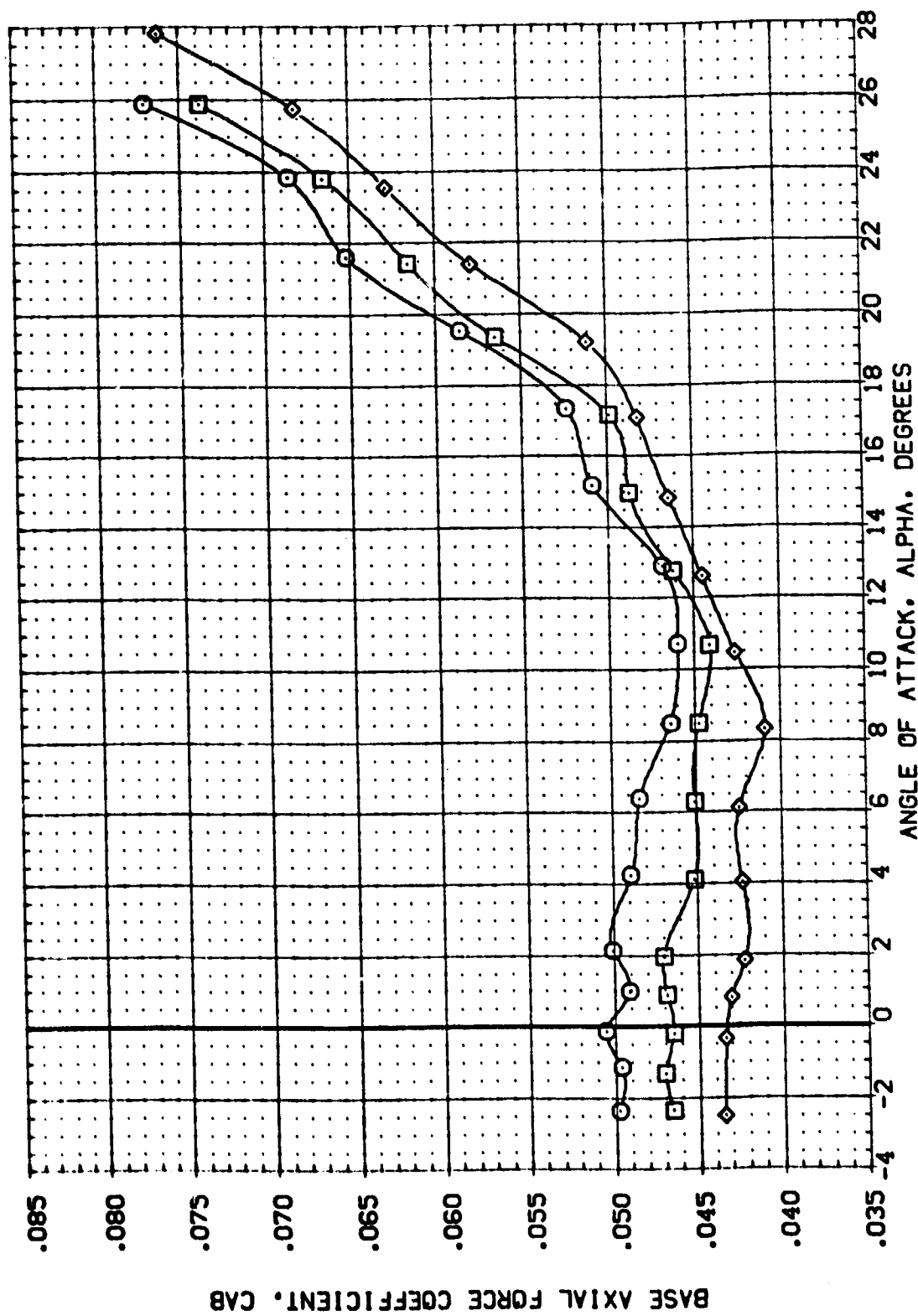


FIGURE 24 089B ORBITER ELEVON DEFLECTION EFFECTS (POSITIVE DEFLECTIONS)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	EDFLAP	SPOBRK	RUDER	REFERENCE INFORMATION	
(APPO29)	QAI7.LTPT138.ORB2A.(B1OC507F4	9.800	-14.250	24.920	.000	SREF	87.1560 SO. IN.
(APPO30)	QAI7.LTPT138.ORB2A.(B1OC507F4	5.150	-14.250	24.920	.000	LREF	19.9245 INCHES
(APPO27)	QAI7.LTPT138.ORB2A.(B1OC507F4	.000	-14.250	24.920	.000	BREF	14.0502 INCHES
						XMRP	13.1469 INCHES
						VMRP	.0000 INCHES
						ZMRP	6.0000 INCHES
						SCALE	.0150 INCHES

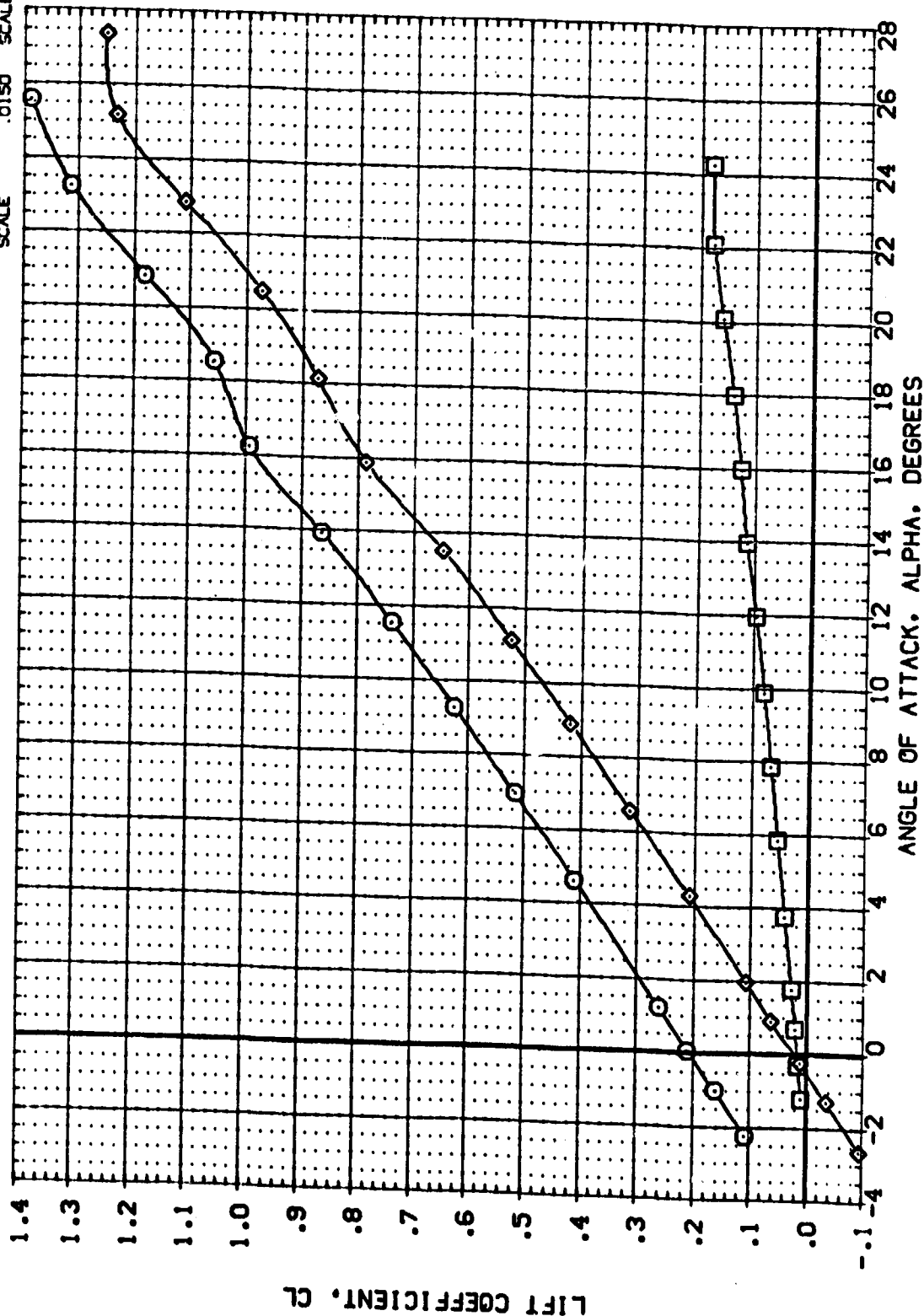


FIGURE 24 0898 ORBITER ELEVON DEFLECTION EFFECTS (POSITIVE DEFLECTIONS)

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPDRBK	RUDER	REFERENCE INFORMATION
(APPC29)	DA17.LTPT136.DR82A.(B)OC507F4	9.800	-14.250	24.920	.000	SREF 87.1560 50.14
(APPC30)	DA17.LTPT136.DR82A.(B)OC507F4	5.150	-14.250	24.920	.000	LREF 19.9245 INCHES
(APPC27)	DA17.LTPT136.DR82A.(B)OC507F4	.000	-14.250	24.920	.000	BREF 14.0502 INCHES
						XREF 13.1469 INCHES
						YREF .0000 INCHES
						ZREF .0000 INCHES
						SCALE .0150

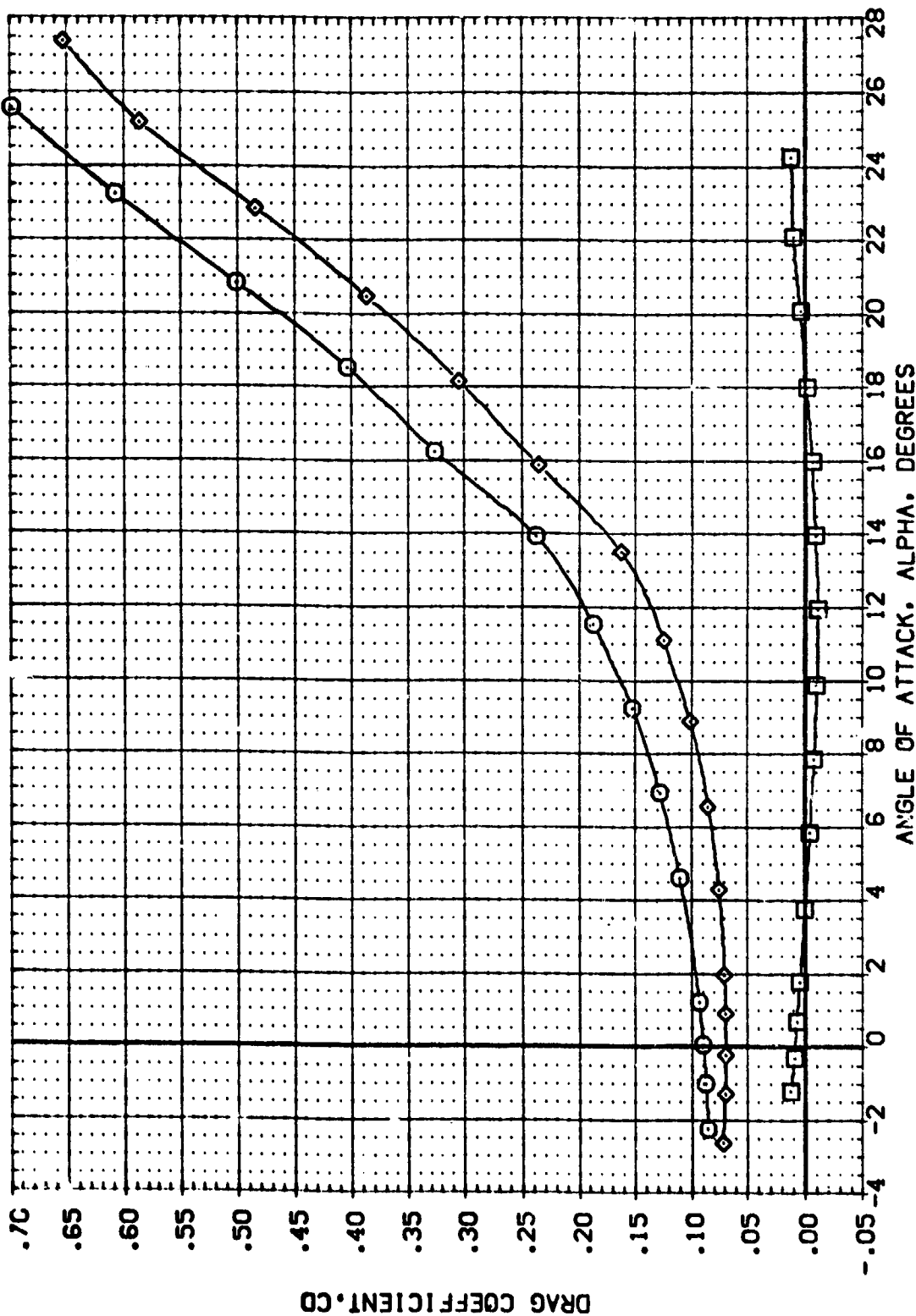


FIGURE 24 0898 ORBITER ELEVON DEFLECTION EFFECTS (POSITIVE DEFLECTIONS)

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APPO28)	DA17.LTPT138.DRB2A.(810C507F4	9.800	-14.250	24.920	.000	SREF 87.1560 SQ.IN.
(APPO30)	DA17.LTPT138.DRB2A.(810C507F4	5.150	-14.250	24.920	.000	LREF 19.9245 INCHES
(APPO27)	DA17.LTPT138.DRB2A.(810C507F4	.000	-14.250	24.920	.000	BREF 14.0502 INCHES
						XREF 13.1469 INCHES
						YREF .0000 INCHES
						ZREF 6.0000 INCHES
						SCALE .0150 SCALE

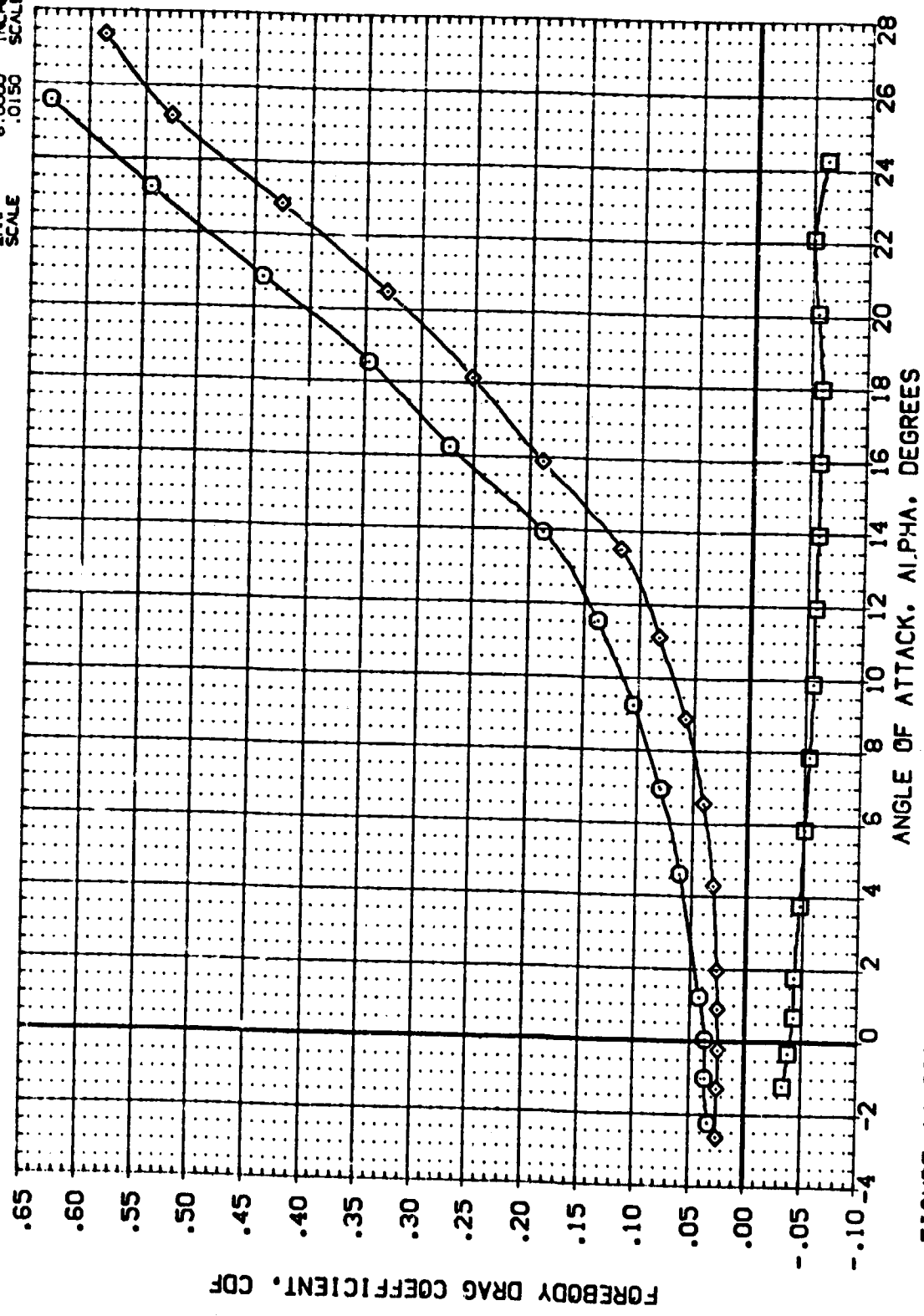


FIGURE 24 089B ORBITER ELEVON DEFLECTION EFFECTS (POSITIVE DEFLECTIONS)

(AJRN/L = 10.00



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPDRBK	ALODER	REFERENCE INFORMATION
(APC28)	DA17.LTPT138.ORB2A.(B)OC507F4	9.800	-14.250	24.320	.000	SREF 87.1560 50.1N
(APC29)	DA17.LTPT138.ORB2A.(B)OC507F4	5.150	-14.250	24.320	.000	LREF 19.9245 INCHES
(APC30)	DA17.LTPT138.ORB2A.(B)OC507F4	.000	-14.250	24.320	.000	BREF 14.0502 INCHES
(APC31)	DA17.LTPT138.ORB2A.(B)OC507F4					XREF 13.1469 INCHES
(APC32)						YREF .0000 INCHES
(APC33)						ZREF .0000 INCHES
(APC34)						SCALE .0150 SCALE

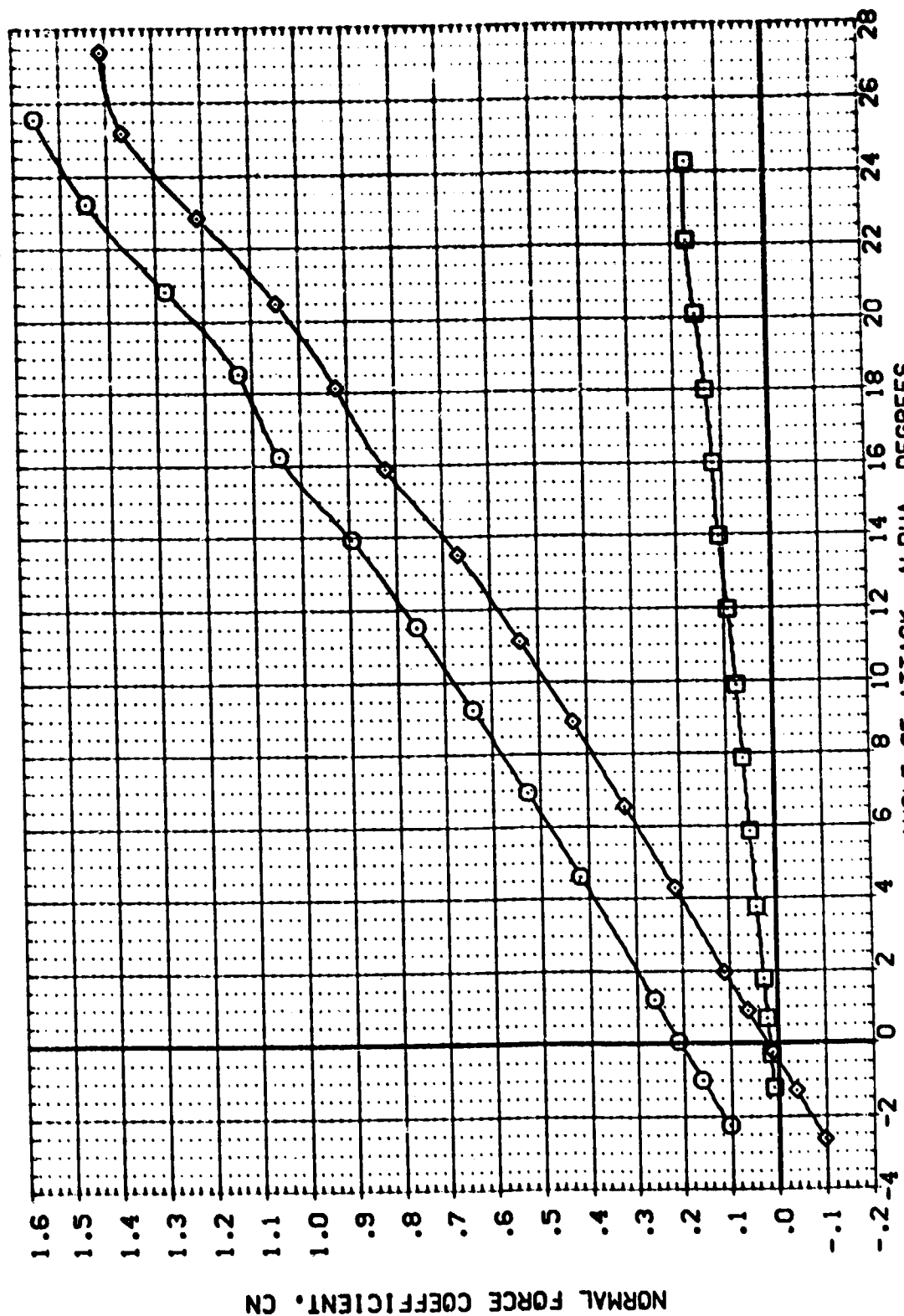


FIGURE 24 089B ORBITER ELEVON DEFLECTION EFFECTS (POSITIVE DEFLECTIONS)

(AJRN/L = 10.00

DATA SET SYMBOL: CA17.LTPT138.082A. (810CS07F4)
 (APPO28)
 (APPO30)
 (APPO27)

CONFIGURATION DESCRIPTION:
 CA17.LTPT138.082A. (810CS07F4)
 CA17.LTPT138.082A. (810CS07F4)
 CA17.LTPT138.082A. (810CS07F4)

ELEVTR: 9.800
 5.150
 .000

80FLAP: -14.250
 -14.250
 -14.250

SPORBK: 24.920
 24.920
 24.920

RUDDER: .000
 .000
 .000

REFERENCE INFORMATION:
 SREF: 87.1560 INCHES
 LREF: 19.9445 INCHES
 BREF: 14.0502 INCHES
 XREF: 13.1469 INCHES
 YREF: .0000 INCHES
 ZREF: 6.0000 INCHES
 SCALE: .0150

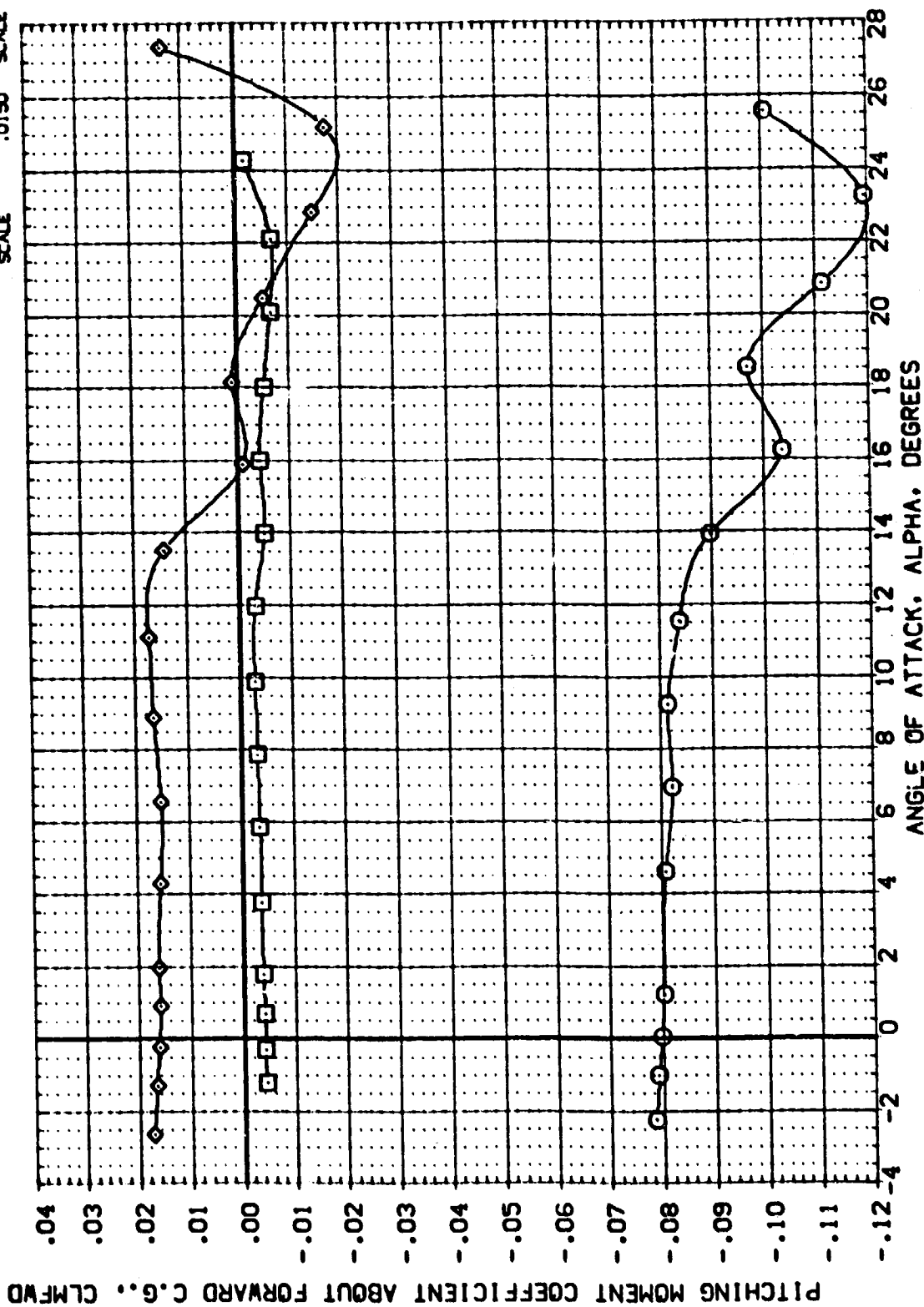


FIGURE 24 089B ORBITER ELEVON DEFLECTION EFFECTS (POSITIVE DEFLECTIONS)

(A)RN/L = 10.00



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPDRBK	RUDER	REFERENCE INFORMATION
(AP029)	DA17.LTPT 38.DR82A.(B)DC507F4	9.800	-14.250	24.920	.000	SREF 87.1560 50 IN
(AP030)	DA17.LTPT 38.DR82A.(B)DC507F4	5.150	-14.250	24.920	.000	LREF 19.9245 NC-ES
(AP037)	DA17.LTPT 38.DR82A.(B)DC507F4	.000	-14.250	24.920	.000	BREF 14.0502 NC-ES
						XREF 13.1469 NC-ES
						YREF .0000 NC-ES
						ZREF 6.0000 NC-ES
						SCALE .0150 SCALE

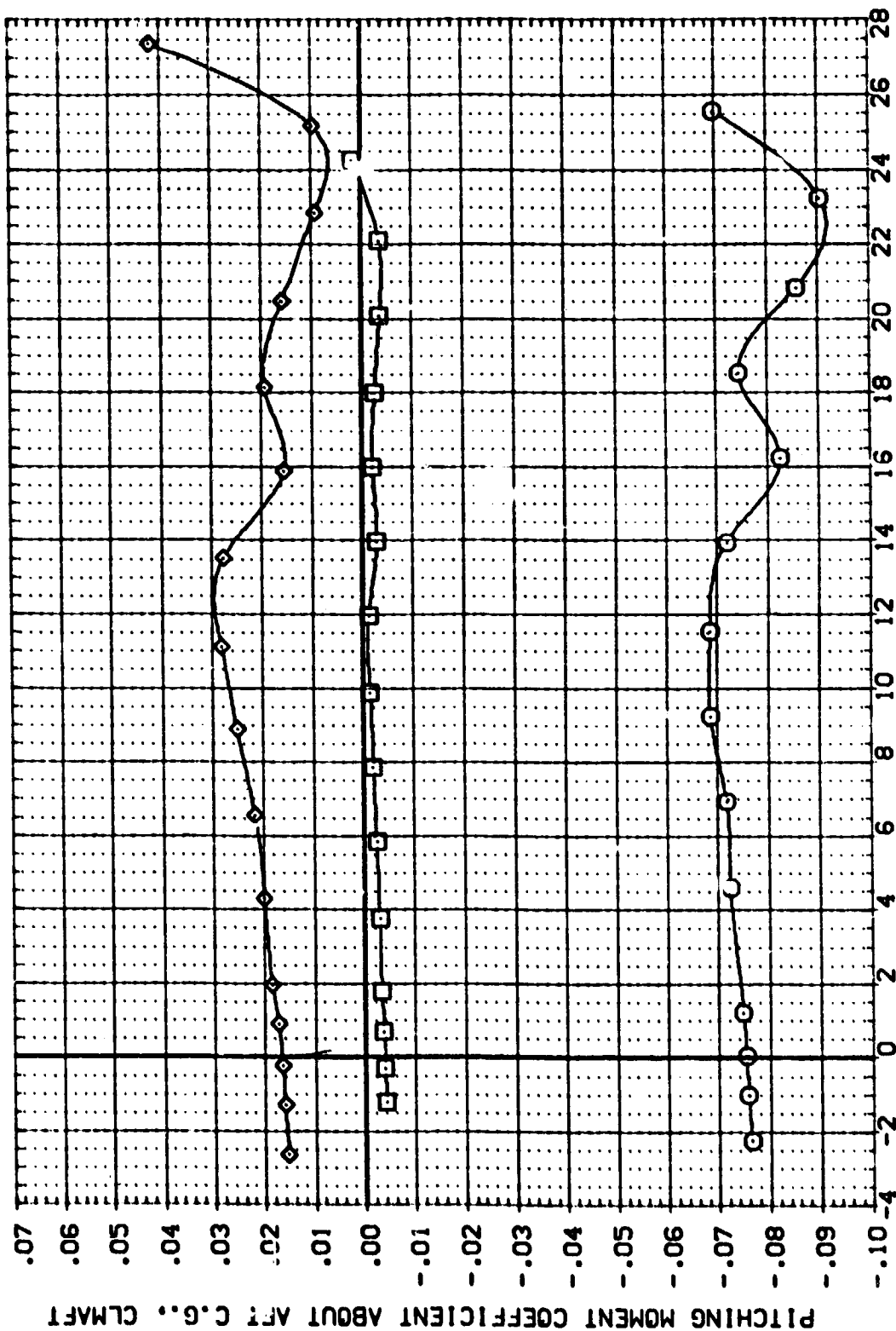


FIGURE 24 0898 ORBITER ELEVON DEFLECTION EFFECTS (POSITIVE DEFLECTIONS)

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	80% LAP	SPOBCK	RLOODR	REFERENCE INFORMATION
(APP028)	0A17.LTPT138.0882A.(B10C507F4	9.800	-14.250	24.920	.000	SREF 87.1500 50. IN.
(APP030)	0A17.LTPT138.0882A.(B10C507F4	5.150	-14.250	24.920	.000	LREF 19.5245 10.65
(APP032)	0A17.LTPT138.0882A.(B10C507F4	.000	-14.250	24.920	.000	BREF 14.0502 10.65
(APP034)	0A17.LTPT138.0882A.(B10C507F4					YREF 13.1459 10.65
						ZREF 6.0000 10.65
						SCALE .0150

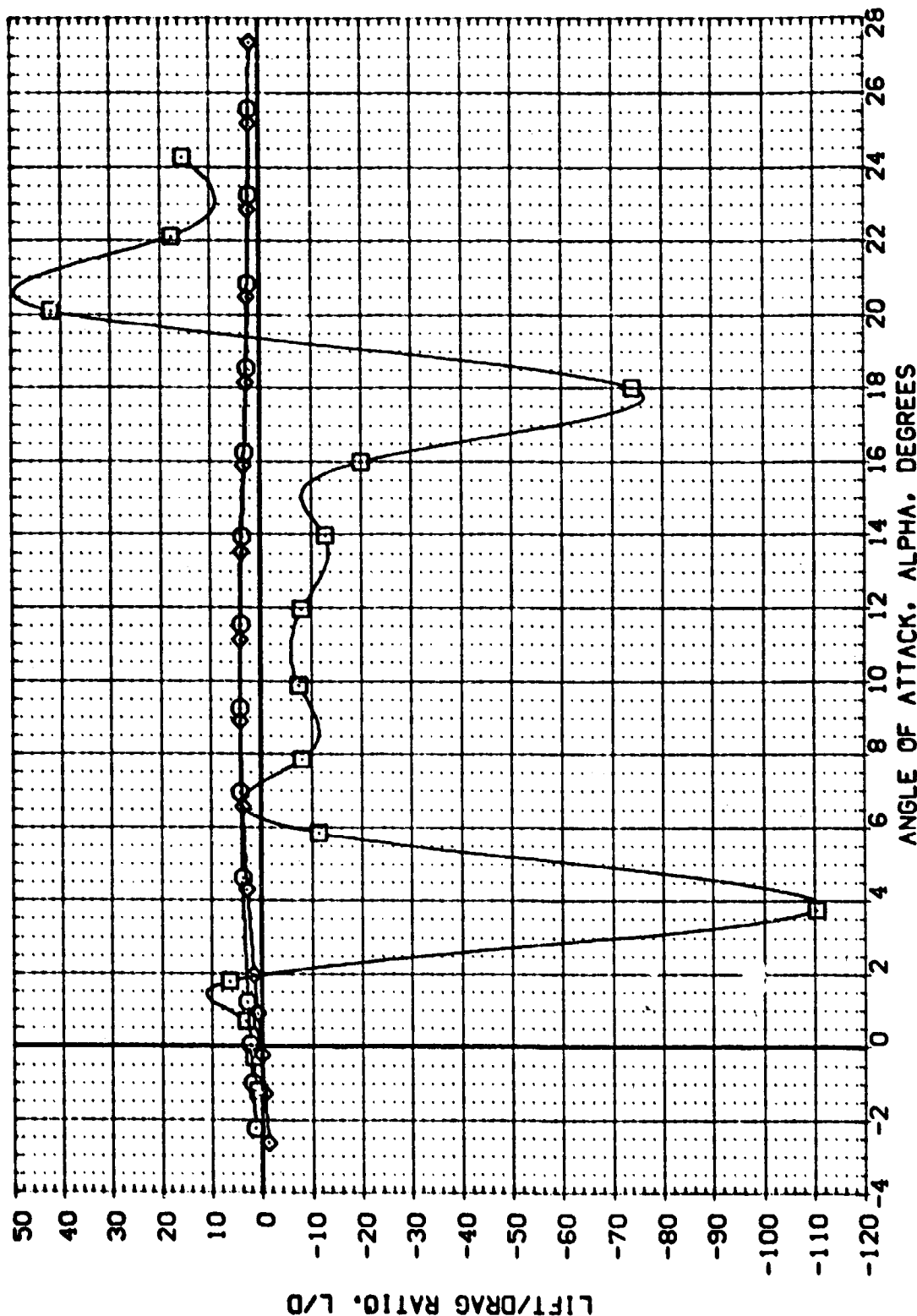


FIGURE 24 089B ORBITER ELEVON DEFLECTION EFFECTS (POSITIVE DEFLECTIONS)

(A)RN/L = 10.00



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPORBN	ALDOOR	REFERENCE INFORMATION
(APC29)	CA17.LTPT 38.DR82A.(81OC507F4	9.800	-14.250	24.920	.000	87.1560 SQ. IN.
(APC30)	CA17.LTPT 38.DR82A.(81OC507F4	5.150	-14.250	24.920	.000	19.9245 INCHES
(APC27)	CA17.LTPT 38.DR82A.(81OC507F4	.000	-14.250	24.920	.000	14.0502 INCHES
						13.1469 INCHES
						.0000 INCHES
						6.0000 INCHES
						.0150 SCALE

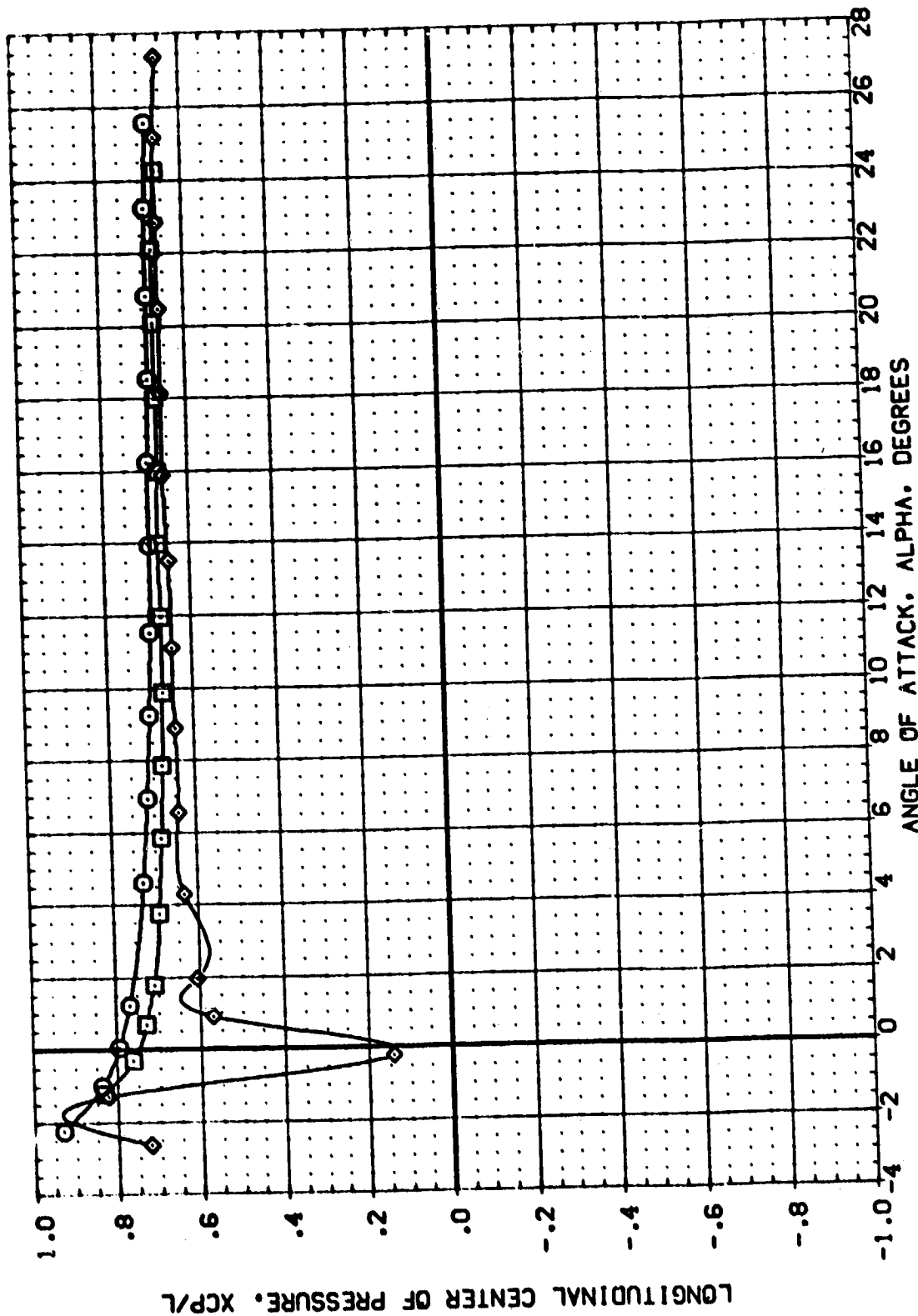


FIGURE 24 089B ORBITER ELEVON DEFLECTION EFFECTS (POSITIVE DEFLECTIONS)

(AJRN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BD-LAP	SPDBRK	FLUDER	REFERENCE INFORMATION
(APPC29)	DA17.LTPT138.DR82A.(8)DC507F4	9.800	-14.250	24.920	.000	87.1580
(APPC30)	DA17.LTPT138.DR82A.(8)DC507F4	5.150	-14.250	24.920	.000	19.5245
(APPC27)	DA17.LTPT138.DR82A.(8)DC507F4	.000	-14.250	24.920	.000	14.0502
						13.1468
						.0000
						6.0000
						.0150
						SCALE

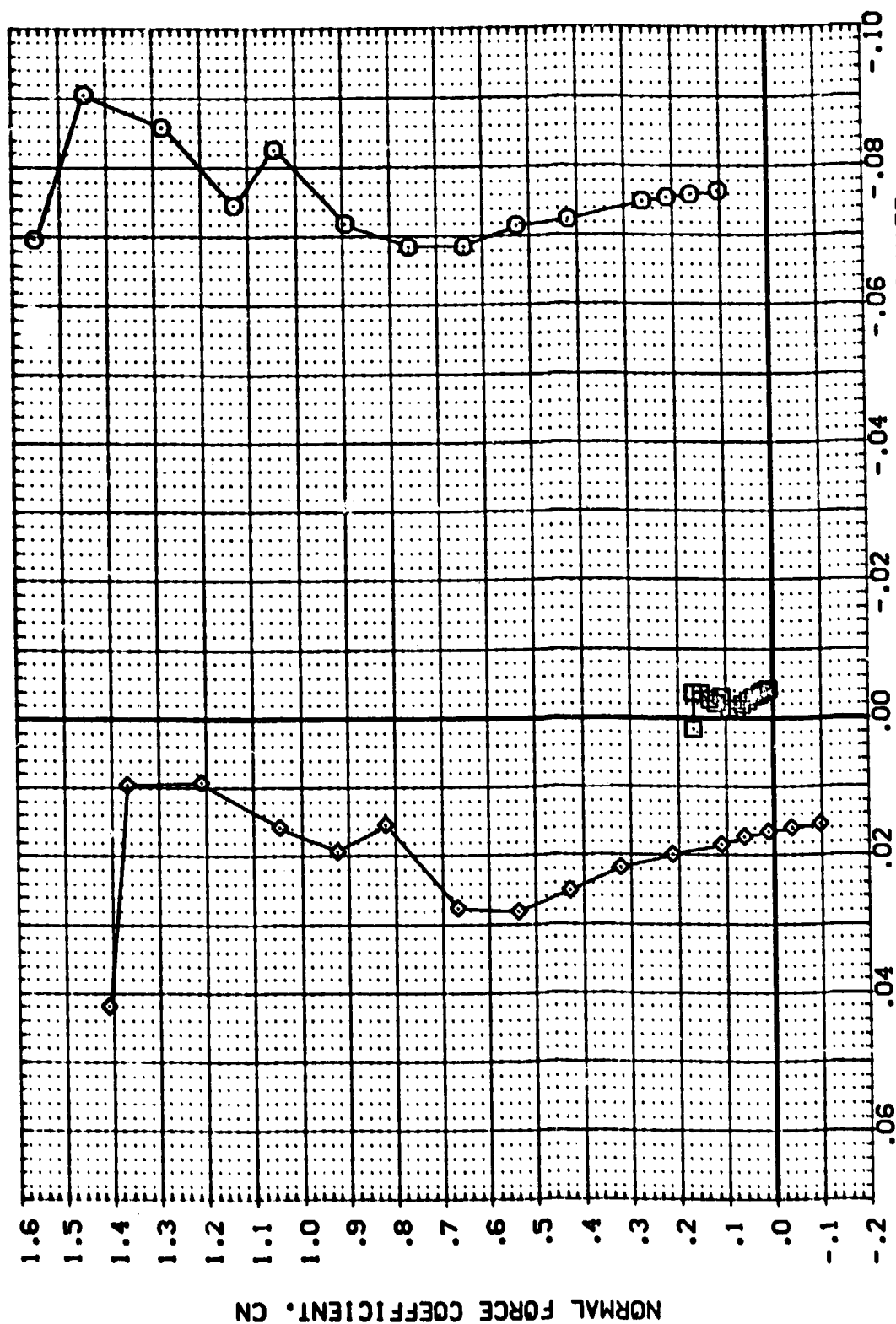


FIGURE 24 089B ORBITER ELEVON DEFLECTION EFFECTS (POSITIVE DEFLECTIONS)

(A)RN/L = 10.00



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	PG1(V87E18)(V395)	PG2(V87E18)(V395)	PG3(V87E18)(V395)	ELEVTR	BOPLAP	SPDRK	ALDOER	REFERENCE INFORMATION
APPO29	DA17.LTPT138.DR82A.(81DC507K4				9.800	-14.250	24.520	.000	97.1580
APPO30	DA17.LTPT138.DR82A.(81DC507K4				5.150	-14.250	24.520	.000	19.5243
APPO31	DA17.LTPT138.DR82A.(81DC507K4				.000	-14.250	24.520	.000	14.0502
APPO32	DA17.LTPT138.DR82A.(81DC507K4								13.1469
APPO33									.0000
APPO34									.0000
APPO35									.0000
APPO36									.0000
APPO37									.0000
APPO38									.0000
APPO39									.0000
APPO40									.0000
APPO41									.0000
APPO42									.0000
APPO43									.0000
APPO44									.0000
APPO45									.0000
APPO46									.0000
APPO47									.0000
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APPO80									.0000
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APPO88									.0000
APPO89									.0000
APPO90									.0000
APPO91									.0000
APPO92									.0000
APPO93									.0000
APPO94									.0000
APPO95									.0000
APPO96									.0000
APPO97									.0000
APPO98									.0000
APPO99									.0000
APPO100									.0000



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BDLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APP029)	CA17.LTPT138-OR82A.(810C507F4	9.800	-14.250	24.920	.000	SREF 87.1960 50.IN.
(APP030)	CA17.LTPT138-OR82A.(810C507F4	5.150	-14.250	24.920	.000	LREF 19.9245 IN-ES
(APP027)	CA17.LTPT138-OR82A.(810C507F4	.000	-14.250	24.920	.000	BREF 14.0502 IN-ES
						XREF 13.1463 IN-ES
						YREF 6.0000 IN-ES
						ZREF 6.0000 IN-ES
						SCALE .0150 SCALE

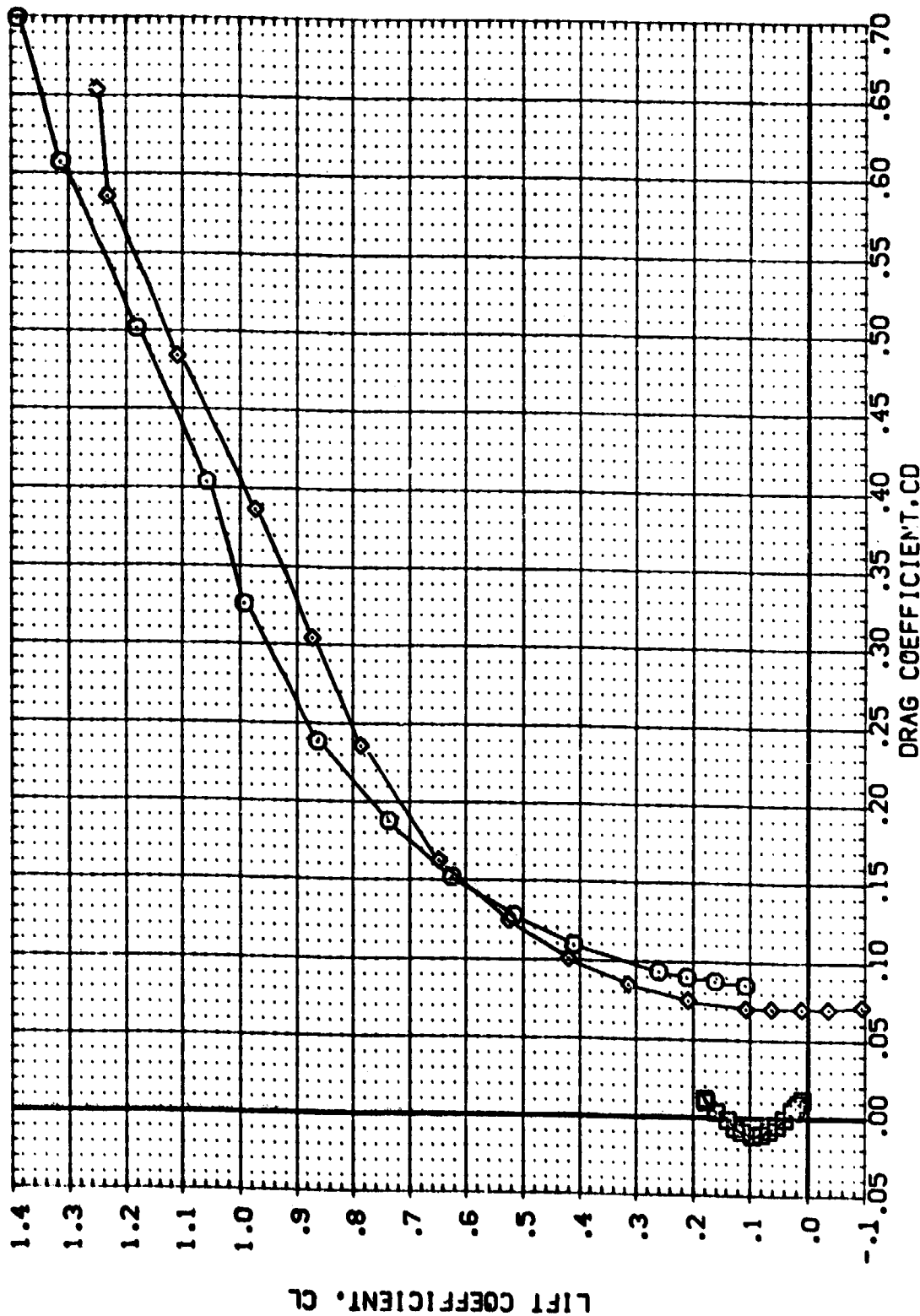


FIGURE 24 0898 ORBITER ELEVON DEFLECTION EFFECTS (POSITIVE DEFLECTIONS)

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RLODER	REFERENCE INFORMATION
000029	CA17.L1PT138.DR82A.(B1OC507F4	9.800	-14.250	24.920	.000	SREF 87.1550
000030	CA17.L1PT138.DR82A.(B1OC507F4	5.150	-14.250	24.920	.000	LREF 19.9245
000031	CA17.L1PT138.DR82A.(B1OC507F4					BREF 14.0502
000032	CA17.L1PT138.DR82A.(B1OC507F4					XREF 13.1469
000033	CA17.L1PT138.DR82A.(B1OC507F4					YREF .0000
000034	CA17.L1PT138.DR82A.(B1OC507F4					ZREF .0000
000035	CA17.L1PT138.DR82A.(B1OC507F4					SCALE 6.0000
000036	CA17.L1PT138.DR82A.(B1OC507F4					SCALE .0150

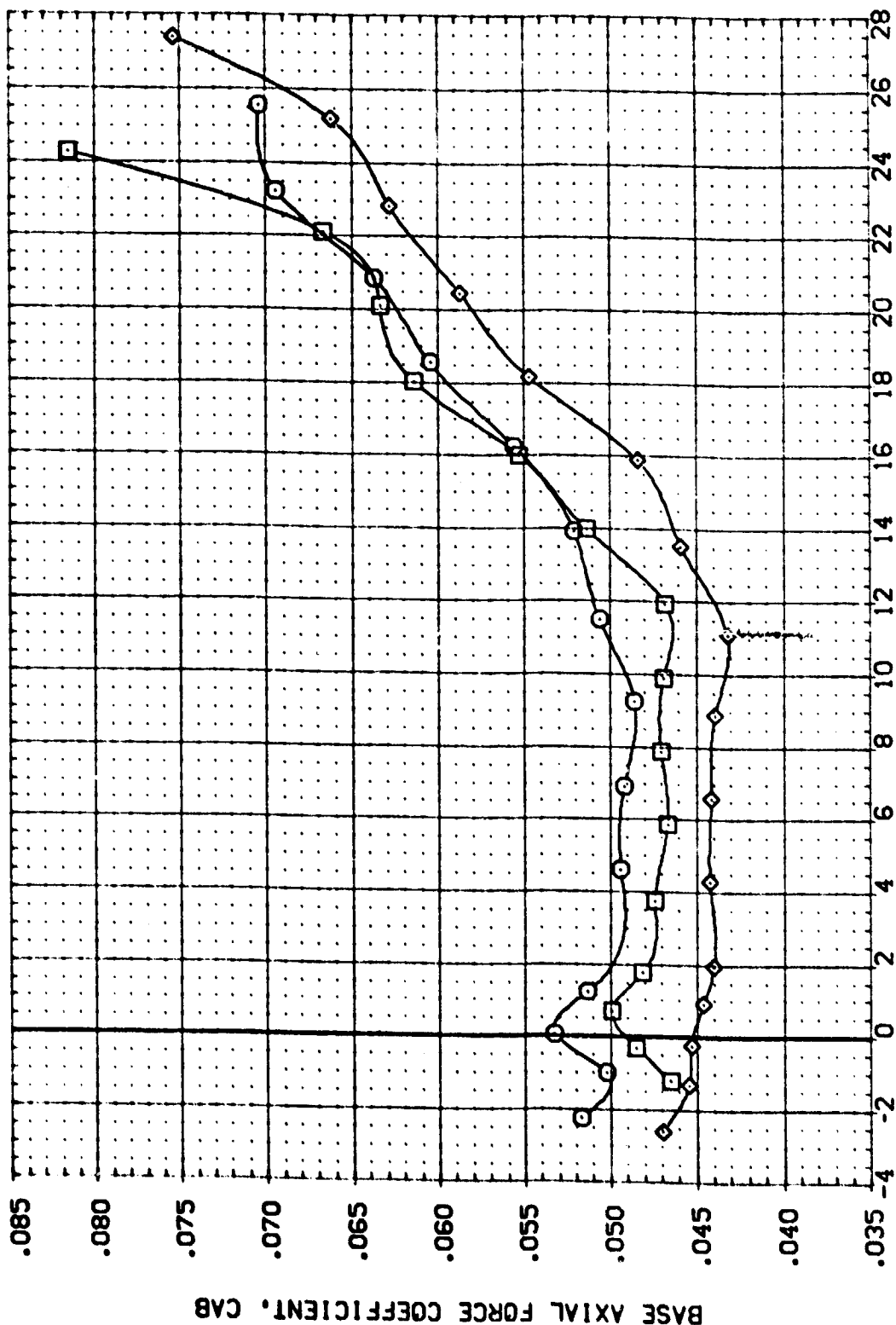


FIGURE 24 089B ORBITER ELEVON DEFLECTION EFFECTS (POSITIVE DEFLECTIONS)

DATA SET SYMBOL	CON	DESCRIPTION	DEL VON	AILRON	BD-LAP	SPDBRK	REFERENCE INFORMATION
[MPC29]	□	CA17.LTPT 38.DRB2A.(B OC507F4	9.800	.000	-14.250	24.920	SREF 87.1560 SQ.IN.
[MPC30]	□	CA17.LTPT 38.DRB2A.(B OC507F4	5.150	.000	-14.250	24.920	UREF 19.9245 INCHES
[MPC32]	□	CA17.LTPT 38.DRB2A.(B OC507F4	-5.080	.000	-14.250	24.920	BREF 14.0502 INCHES
[MPC36]	□	CA17.LTPT 38.DRB2A.(B OC507F4	-9.400	.000	-14.250	24.920	XREF 13.1469 INCHES
[MPC35]	□	CA17.LTPT 38.DRB2A.(B OC507F4	-19.200	.000	-14.250	24.920	YREF 6.0000 INCHES
[MPC38]	□	CA17.LTPT 38.DRB2A.(B OC507F4	-24.500	.000	-14.250	24.920	ZREF .0150 SCALE

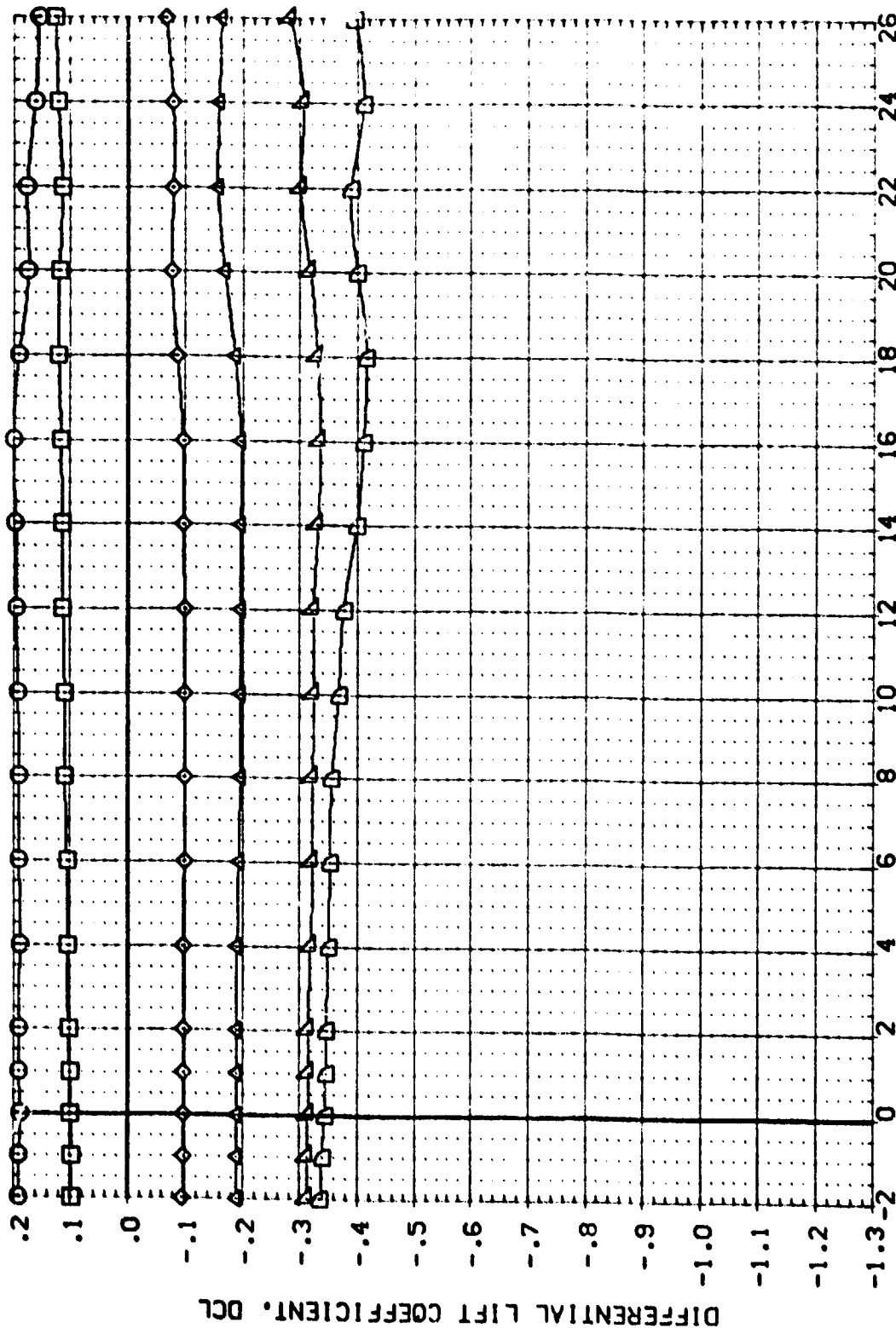


FIGURE 25 089B ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 4.70



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DELTON	A:LRON	BOFLAP	SPDRBK	REFERENCE INFORMATION
(HPPC29)	DA17.LTPT138.CRB2A.(B1CC5D7F4	9.800	.000	-14.250	24.920	SREF 97.1560
(HPPC30)	DA17.LTPT138.CRB2A.(B1CC5D7F4	5.150	.000	-14.250	24.920	LREF 19.9245
(HPPC32)	DA17.LTPT138.CRB2A.(B1CC5D7F4	-5.080	.000	-14.250	24.920	BREF 14.0502
(HPPC36)	DA17.LTPT138.CRB2A.(B1CC5D7F4	-3.400	.000	-14.250	24.920	XMRP 13.1459
(HPPC35)	DA17.LTPT138.CRB2A.(B1CC5D7F4	-19.200	.000	-14.250	24.920	YMRP 6.0000
(HPPC38)	DA17.LTPT138.CRB2A.(B1CC5D7F4	-24.500	.000	-14.250	24.920	ZMRP 6.0000
						SCALE .0150

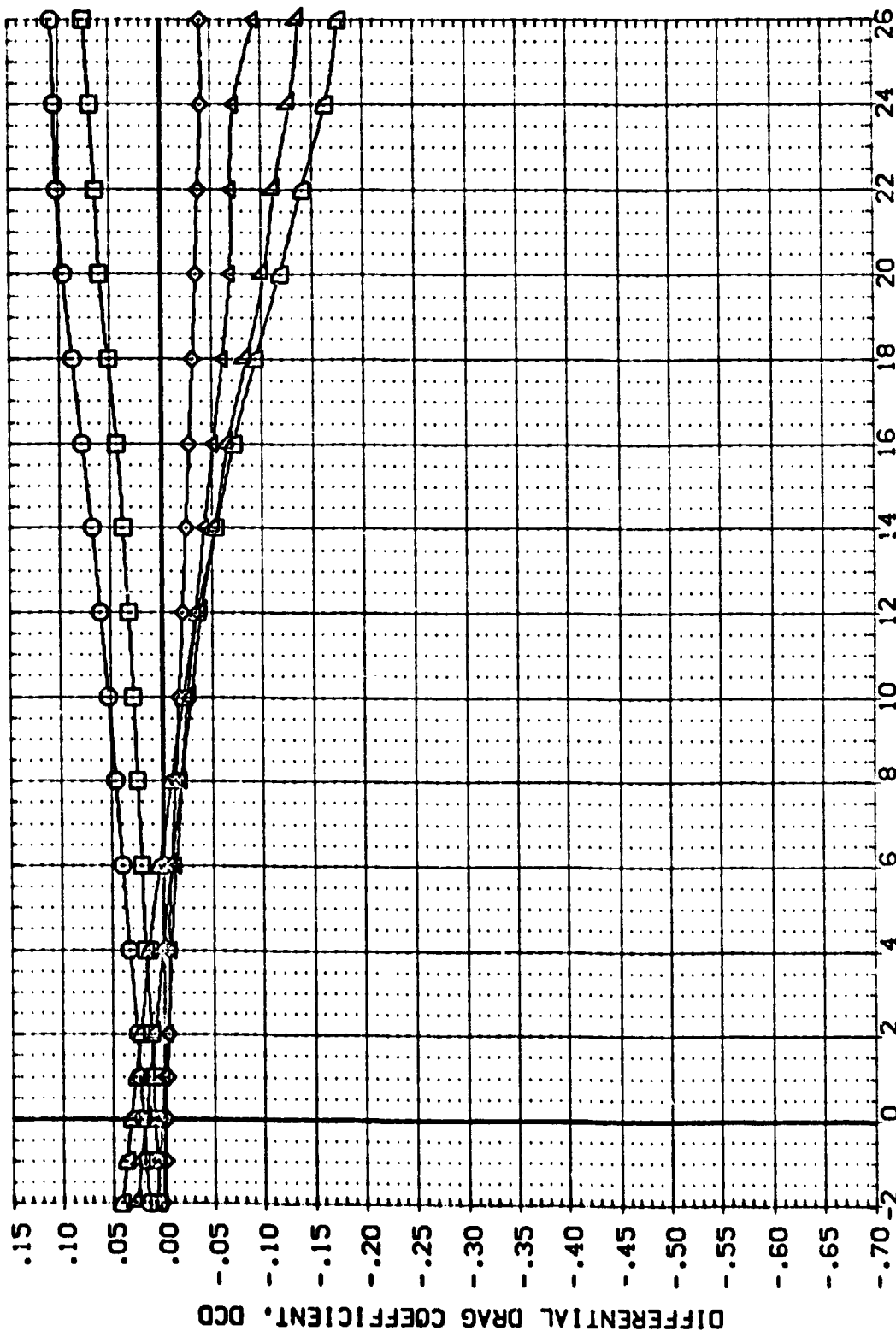


FIGURE 25 0898 ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DEL VON	AIRLON	BOFLAP	SPDRK	REFERENCE INFORMATION	SO. IN.
(APP028)	CA17.LTPT138.CRB2A.(B10C507F4	9.800	.000	-14.250	24.920	SREF	87.1560
(APP030)	CA17.LTPT138.CRB2A.(B10C507F4	5.150	.000	-14.250	24.920	LREF	19.9245
(APP032)	CA17.LTPT138.CRB2A.(B10C507F4	-5.080	.000	-14.250	24.920	BREF	14.0502
(APP035)	CA17.LTPT138.CRB2A.(B10C507F4	-9.400	.000	-14.250	24.920	XMRP	13.1469
(APP038)	CA17.LTPT138.CRB2A.(B10C507F4	-19.200	.000	-14.250	24.920	YMRP	.0000
		-24.500	.000	-14.250	24.920	ZMRP	.0000
						SCALE	.0150

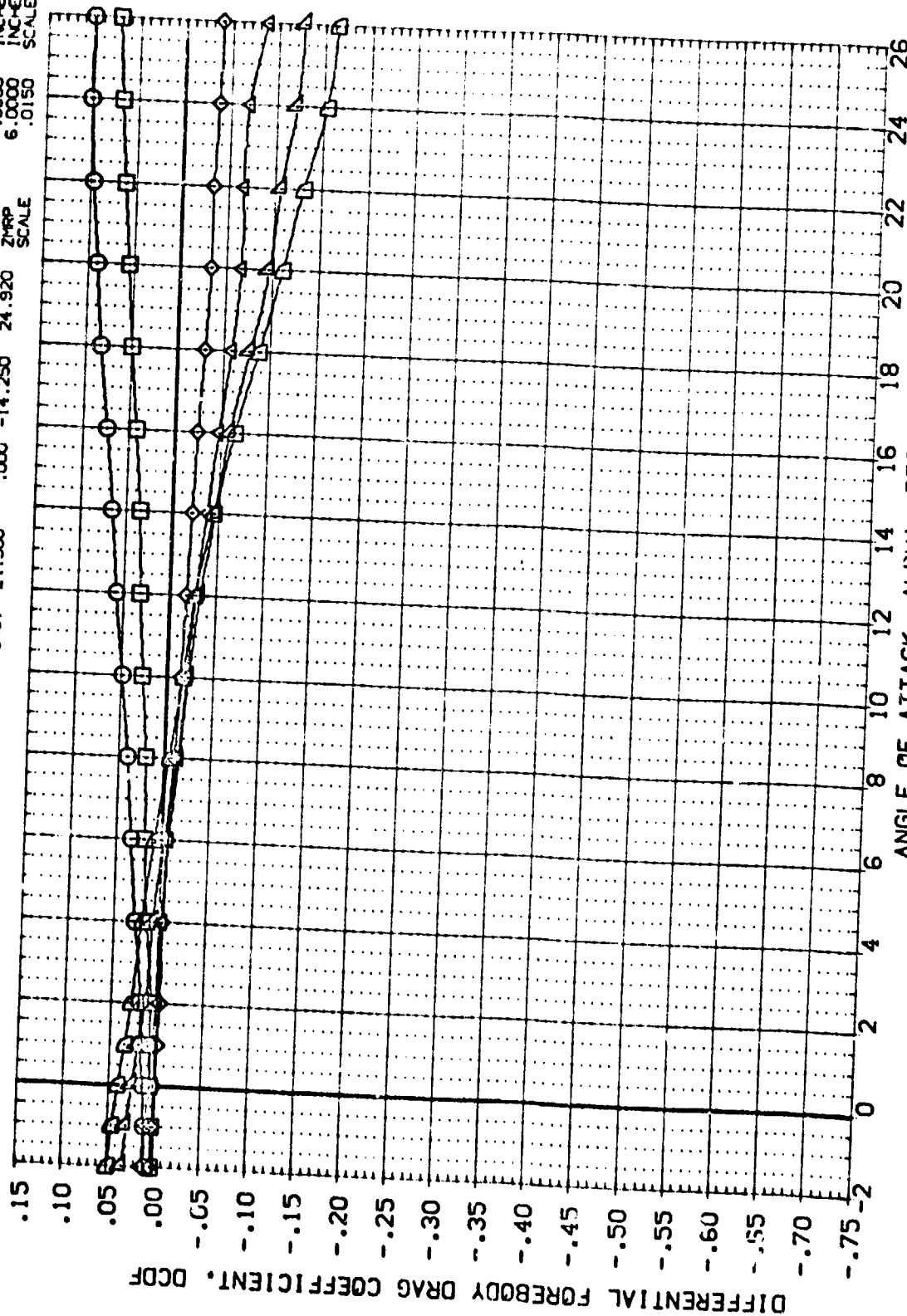


FIGURE 25 089B ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS
CAJRN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DELTON	AIRLON	EDFLAP	SPOBRK	REFERENCE INFORMATION
100029	CA17,LTPT138,CRB2A,(B1CCSD7F4	9.800	.000	-14.250	24.920	SREF 87.1560 50. IN.
100030	CA17,LTPT138,CRB2A,(B1CCSD7F4	5.150	.000	-14.250	24.920	LREF 19.9245 INCHES
100031	CA17,LTPT138,CRB2A,(B1CCSD7F4	-5.080	.000	-14.250	24.920	BREF 14.0502 INCHES
100032	CA17,LTPT138,CRB2A,(B1CCSD7F4	-9.400	.000	-14.250	24.920	XREF 13.1469 INCHES
100033	CA17,LTPT138,CRB2A,(B1CCSD7F4	-19.200	.000	-14.250	24.920	YREF 6.0000 INCHES
100034	CA17,LTPT138,CRB2A,(B1CCSD7F4	-24.500	.000	-14.250	24.920	ZREF 6.0000 INCHES
100035						SCALE .0150

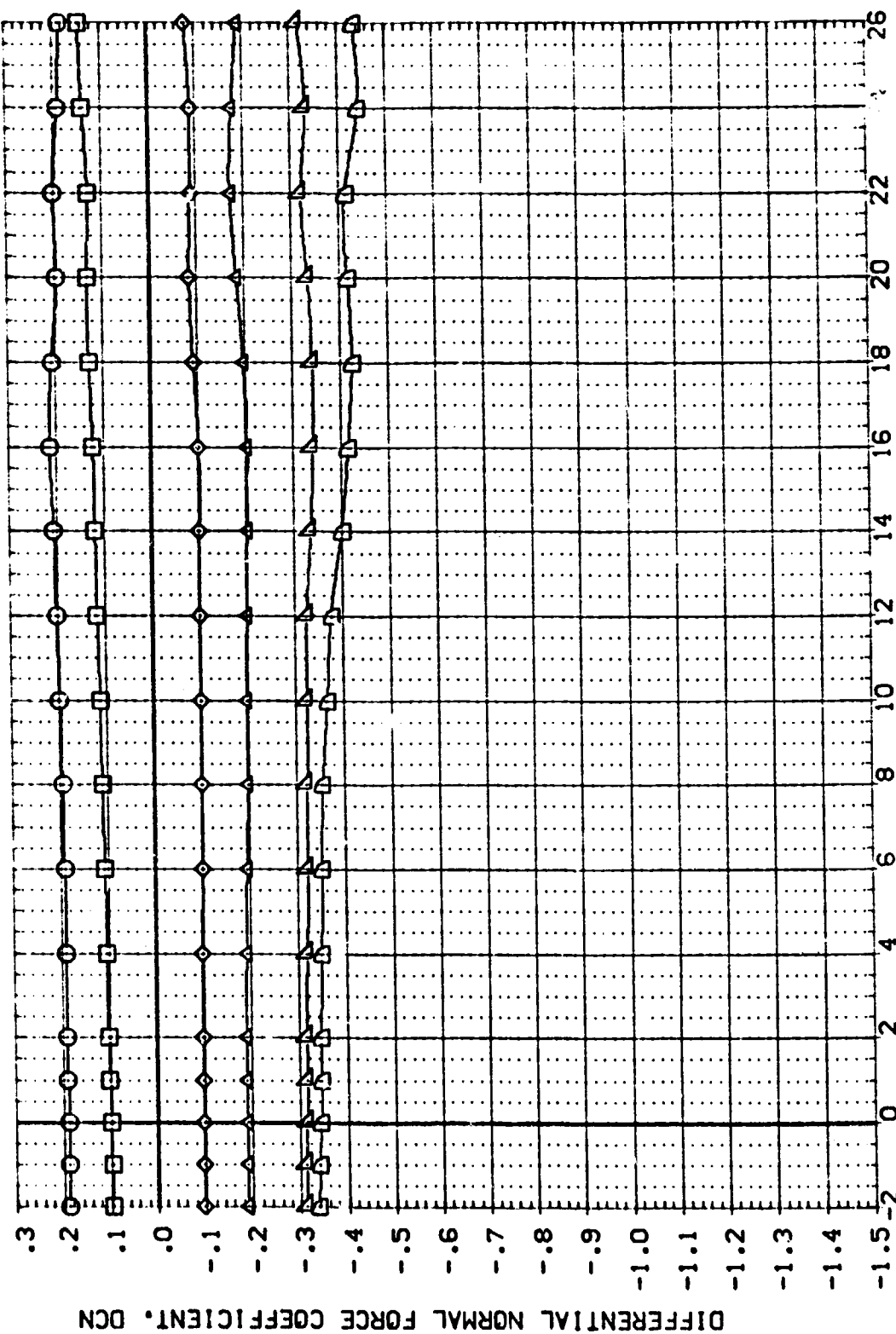


FIGURE 25 089B ORBITER ELIVON DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DELTON	AILRON	BOFLAP	SPOBRK	REFERENCE INFORMATION
(APPJ29)	CA17.L1PT138.DRB2A.(B1OC5D7F4	M3)(V87E18)(V5RS)	.000	-14.250	24.920	SREF 87.1560 SO.IN.
(APPJ30)	CA17.L1PT138.DRB2A.(B1OC5D7F4	M3)(V87E18)(V5RS)	.000	-14.250	24.920	LREF 19.3245 INCHES
(APPJ31)	CA17.L1PT138.DRB2A.(B1OC5D7F4	M3)(V87E18)(V5RS)	.000	-14.250	24.920	BREF 14.0502 INCHES
(APPJ32)	CA17.L1PT138.DRB2A.(B1OC5D7F4	M3)(V87E18)(V5RS)	.000	-14.250	24.920	XREF 13.1469 INCHES
(APPJ33)	CA17.L1PT138.DRB2A.(B1OC5D7F4	M3)(V87E18)(V5RS)	.000	-14.250	24.920	YREF 6.0000 INCHES
(APPJ34)	CA17.L1PT138.DRB2A.(B1OC5D7F4	M3)(V87E18)(V5RS)	.000	-14.250	24.920	ZREF 6.0000 INCHES
						SCALE .0150

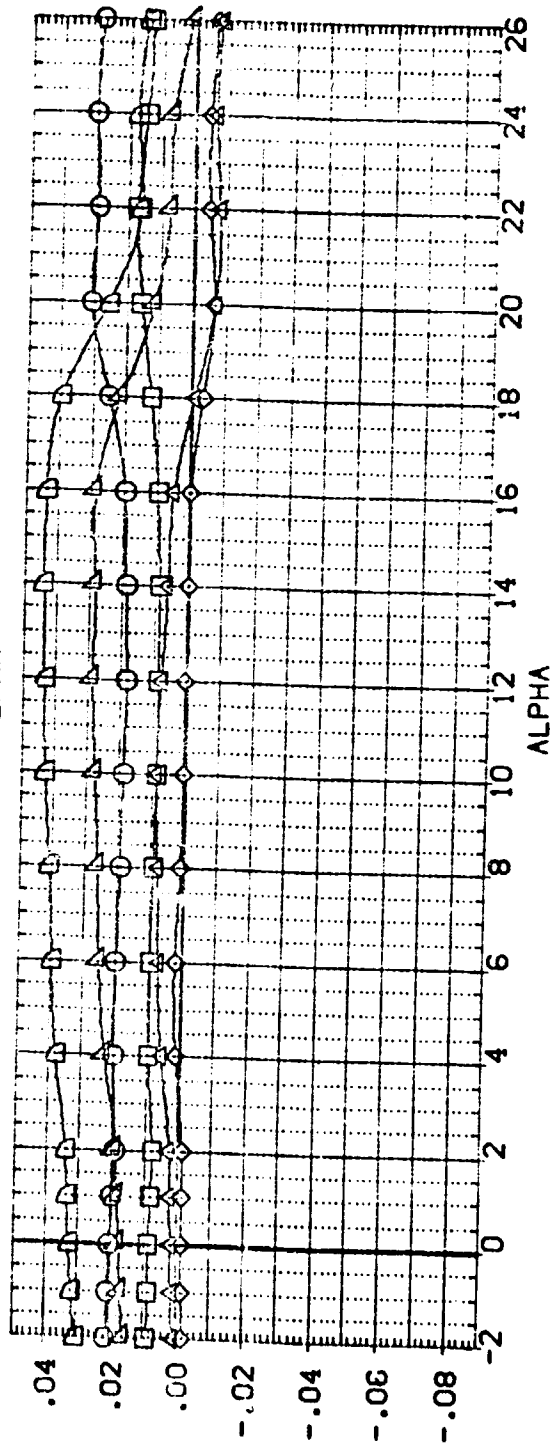
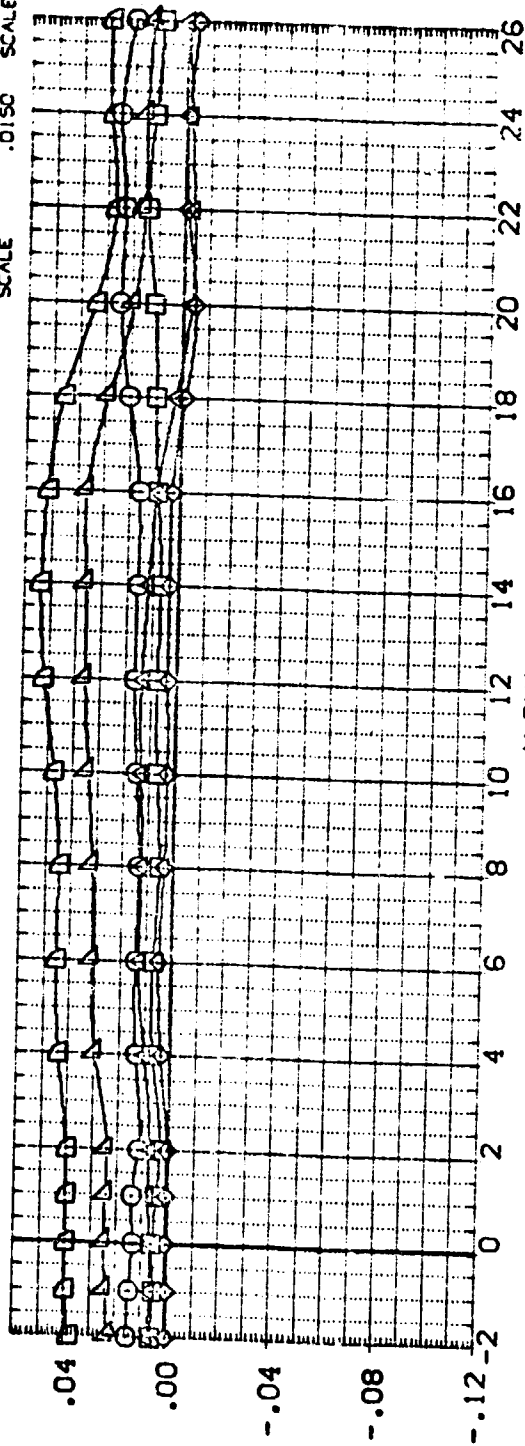


FIGURE 25 089B ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 4.70

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	DEL VON	AILRON	BOFLAP	SPDBRK	REFERENCE INFORMATION
(APP29)	DA17.LTPT138.CR82A.(BIOC507F4	M31(V87E18)(V5K5)	9.800	.000	-14.250	24.920	SREF 87.1560 50 IN.
(APP30)	DA17.LTPT138.CR82A.(BIOC507F4	M31(V87E18)(V5K5)	5.150	.000	-14.250	24.920	LREF 19.9245 INCHES
(APP31)	DA17.LTPT138.CR82A.(BIOC507F4	M31(V87E18)(V5K5)	-5.060	.000	-14.250	24.920	BREF 14.0502 INCHES
(APP32)	DA17.LTPT138.CR82A.(BIOC507F4	M31(V87E18)(V5K5)	-9.400	.000	-14.250	24.920	XTRP 13.1469 INCHES
(APP33)	DA17.LTPT138.CR82A.(BIOC507F4	M31(V87E18)(V5K5)	-19.200	.000	-14.250	24.920	YTRP 6.0000 INCHES
(APP34)	DA17.LTPT138.CR82A.(BIOC507F4	M31(V87E18)(V5K5)	-24.500	.000	-14.250	24.920	ZTRP 6.0150 INCHES
(APP35)							SCALE

DIFFERENTIAL PITCHING MOMENT COEFFICIENT (FORWARD C.G.). DCLMFD

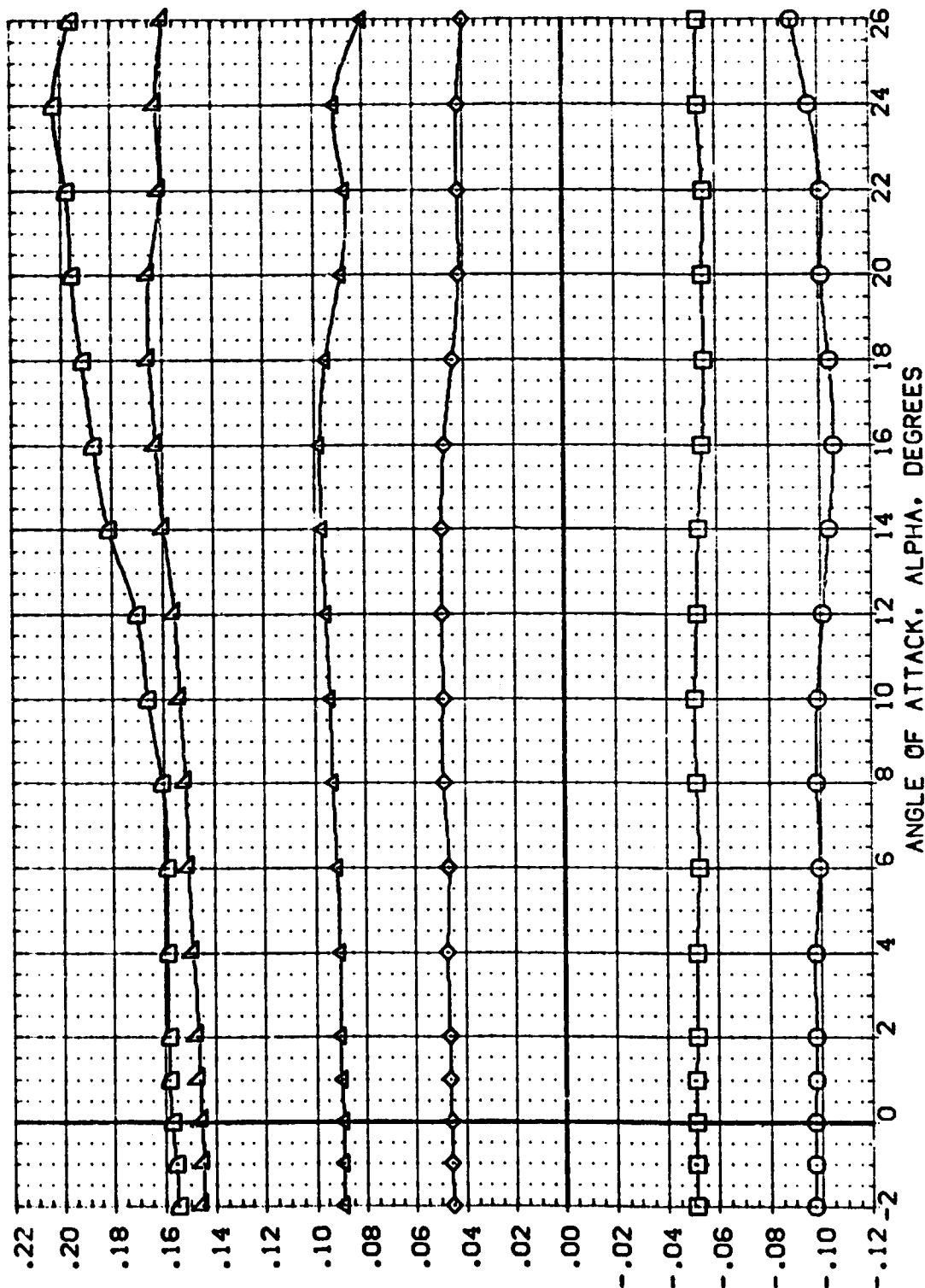


FIGURE 25 0898 ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

(A) RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DEL VON	AIRLON	BOFLAP	SPOBRK	REFERENCE INFORMATION
(HPC029)	DA17,LTPT 38,OR82A,(B10C507F4	M3 (V87E18 (V5K5)	.000	-14.250	24.920	SREF 87.1560 50.1N.
(HPC030)	DA17,LTPT 38,OR82A,(B10C507F4	M3 (V87E18 (V5K5)	.000	-14.250	24.920	LREF 19.9245 INCLES
(HPC031)	DA17,LTPT 38,OR82A,(B10C507F4	M3 (V87E18 (V5K5)	.000	-14.250	24.920	BREF 14.0502 INCLES
(HPC032)	DA17,LTPT 38,OR82A,(B10C507F4	M3 (V87E18 (V5K5)	.000	-14.250	24.920	XREF 13.1469 INCLES
(HPC033)	DA17,LTPT 38,OR82A,(B10C507F4	M3 (V87E18 (V5K5)	.000	-14.250	24.920	YREF 6.0000 INCLES
(HPC034)	DA17,LTPT 38,OR82A,(B10C507F4	M3 (V87E18 (V5K5)	.000	-14.250	24.920	ZREF 6.0000 INCLES
(HPC035)	DA17,LTPT 38,OR82A,(B10C507F4	M3 (V87E18 (V5K5)	.000	-14.250	24.920	SCALE .0150 SCALE

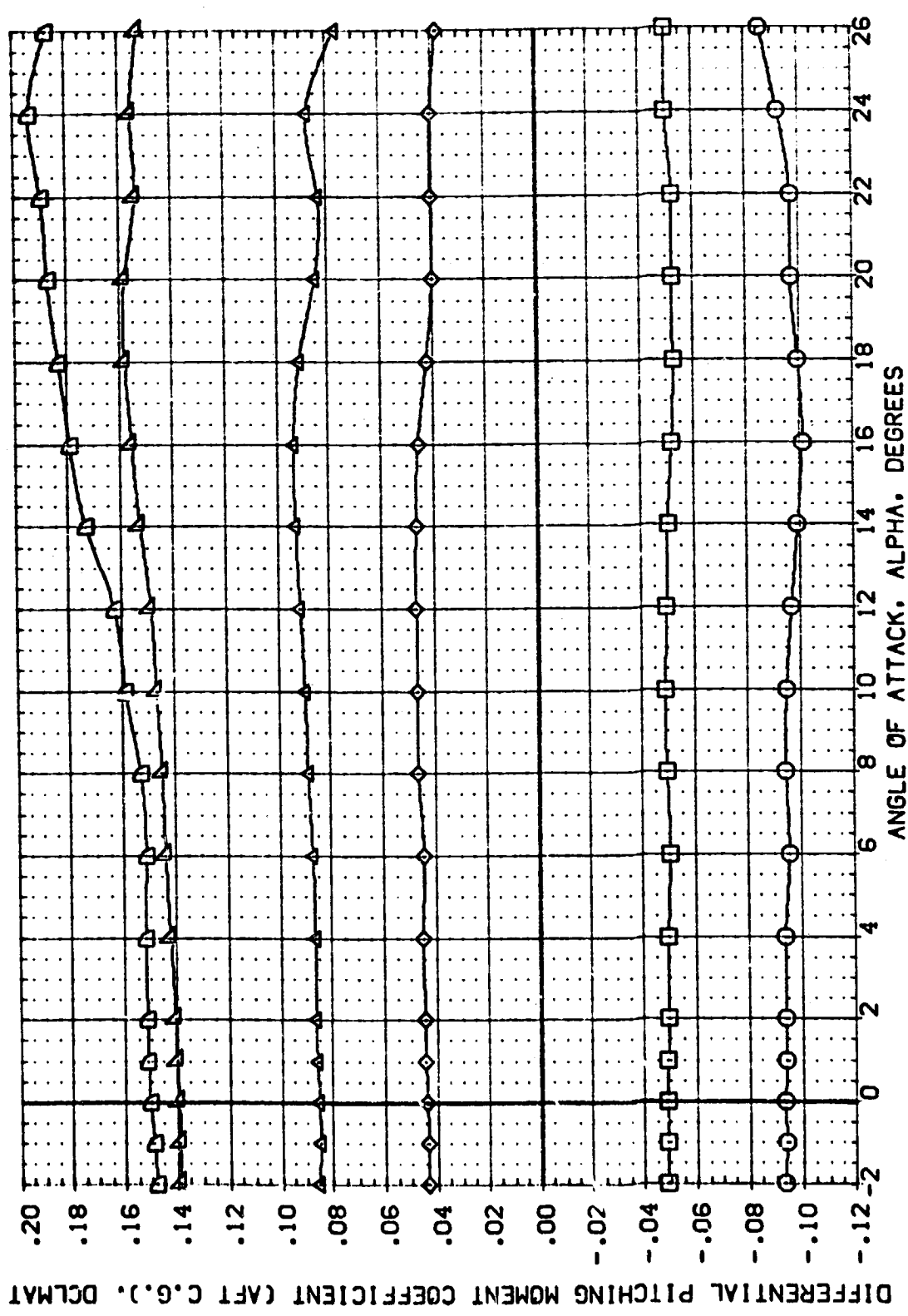


FIGURE 25 089B ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DELTON	AIRLON	BOFLAP	SPOBRK	REFERENCE INFORMATION	SO. IN.
(FDP-29)	DA17,LTPT138,CRB2A,(B)IC507F4	9.800	.000	-14.250	24.920	SREF	87.1560
(FDP-30)	DA17,LTPT138,CRB2A,(B)IC507F4	5.150	.000	-14.250	24.920	LREF	19.9245
(FDP-31)	DA17,LTPT138,CRB2A,(B)IC507F4	-5.080	.000	-14.250	24.920	BREF	14.0502
(FDP-32)	DA17,LTPT138,CRB2A,(B)IC507F4	-5.100	.000	-14.250	24.920	XRRP	13.1469
(FDP-33)	DA17,LTPT138,CRB2A,(B)IC507F4	-19.200	.000	-14.250	24.920	YRRP	6.0000
(FDP-34)	DA17,LTPT138,CRB2A,(B)IC507F4	-24.500	.000	-14.250	24.920	ZRRP	6.0000
						SCALE	.0150
						SCALE	

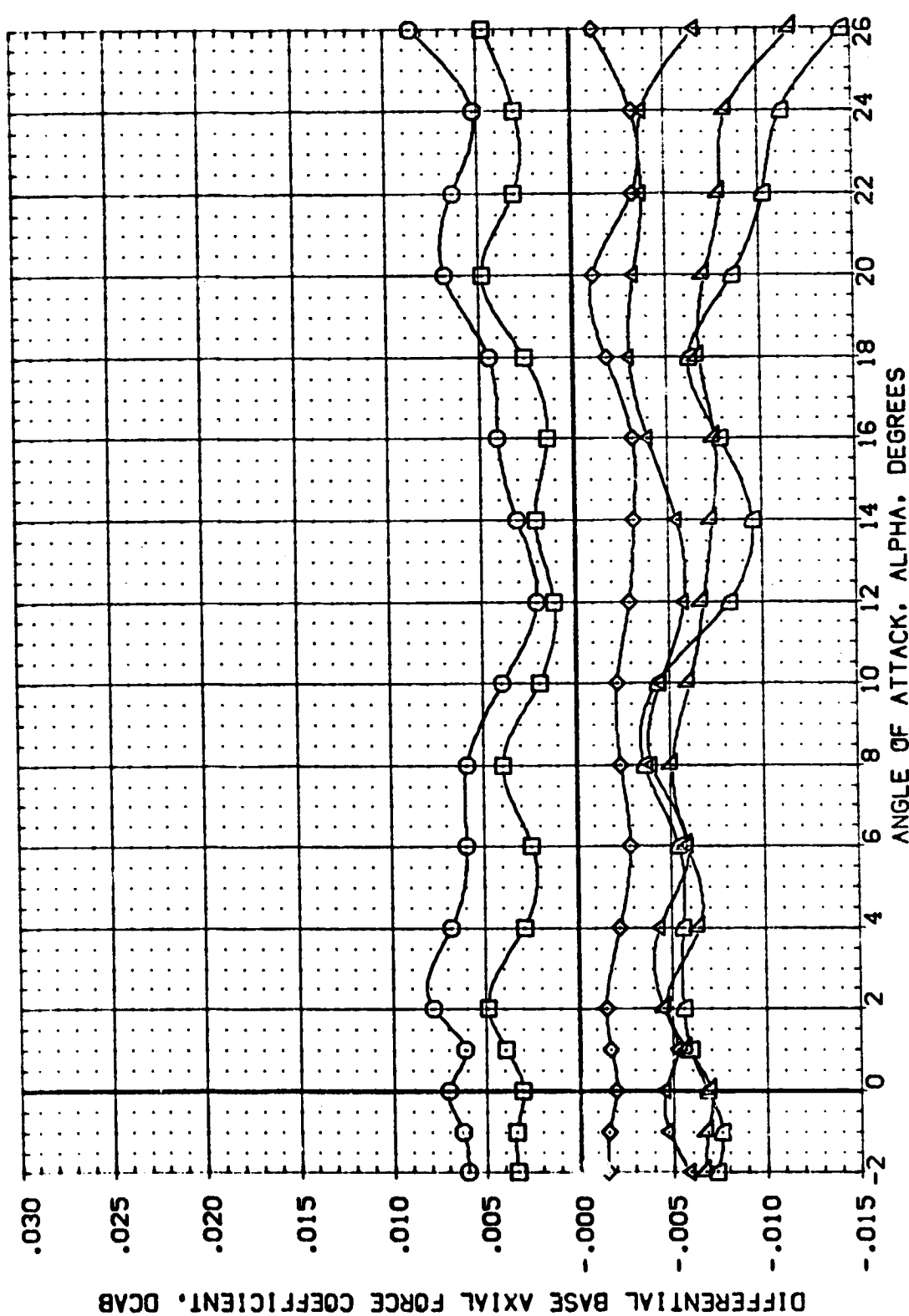


FIGURE 25 0898 ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

(AIRN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DEL VON	AILRON	BOFLAP	SPOBRK	REFERENCE INFORMATION
(MPP028)	CA17.LTPT138.082A. (B10C507F4	9.800	.000	-14.250	24.920	SREF 87.1560
(MPP030)	CA17.LTPT138.082A. (B10C507F4	9.150	.000	-14.250	24.920	LREF 19.9245
(MPP032)	CA17.LTPT138.082A. (B10C507F4	9.080	.000	-14.250	24.920	BREF 14.0502
(MPP036)	CA17.LTPT138.082A. (B10C507F4	9.400	.000	-14.250	24.920	XMRP 13.1469
(MPP035)	CA17.LTPT138.082A. (B10C507F4	-19.200	.000	-14.250	24.920	YMRP 6.0000
(MPP038)	CA17.LTPT138.082A. (B10C507F4	-24.500	.000	-14.250	24.920	ZMRP 6.0150
						SCALE

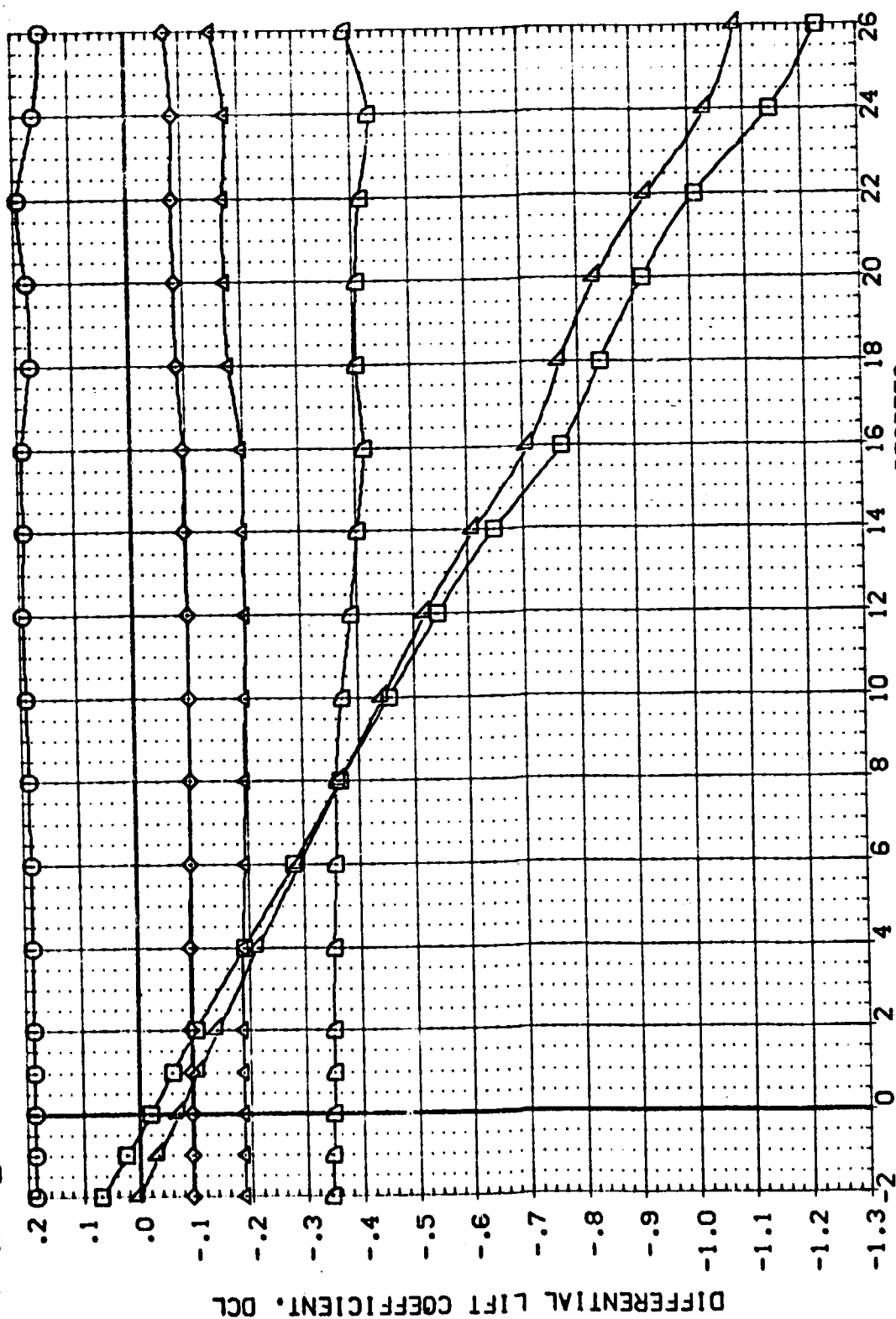


FIGURE 25 089B ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DELTON	AIRLON	BOFLAP	SPDRK	REFERENCE INFORMATION
(HPO29)	CA17,LTPT138,CRB2A,(B)DC507F4	M31(V87E18)(V5R5)	.000	-14.250	24.920	SREF 87.1560 INCHES
(HPO30)	CA17,LTPT138,CRB2A,(B)DC507F4	M31(V87E18)(V5R5)	.000	-14.250	24.920	LREF 19.9245 INCHES
(HPO31)	CA17,LTPT138,CRB2A,(B)DC507F4	M31(V87E18)(V5R5)	.000	-14.250	24.920	BREF 14.0502 INCHES
(HPO32)	CA17,LTPT138,CRB2A,(B)DC507F4	M31(V87E18)(V5R5)	.000	-14.250	24.920	XREF 13.1469 INCHES
(HPO33)	CA17,LTPT138,CRB2A,(B)DC507F4	M31(V87E18)(V5R5)	.000	-14.250	24.920	YREF .0000 INCHES
(HPO34)	CA17,LTPT138,CRB2A,(B)DC507F4	M31(V87E18)(V5R5)	.000	-14.250	24.920	ZREF 6.0000 INCHES
(HPO35)	CA17,LTPT138,CRB2A,(B)DC507F4	M31(V87E18)(V5R5)	.000	-14.250	24.920	SCALE .0150

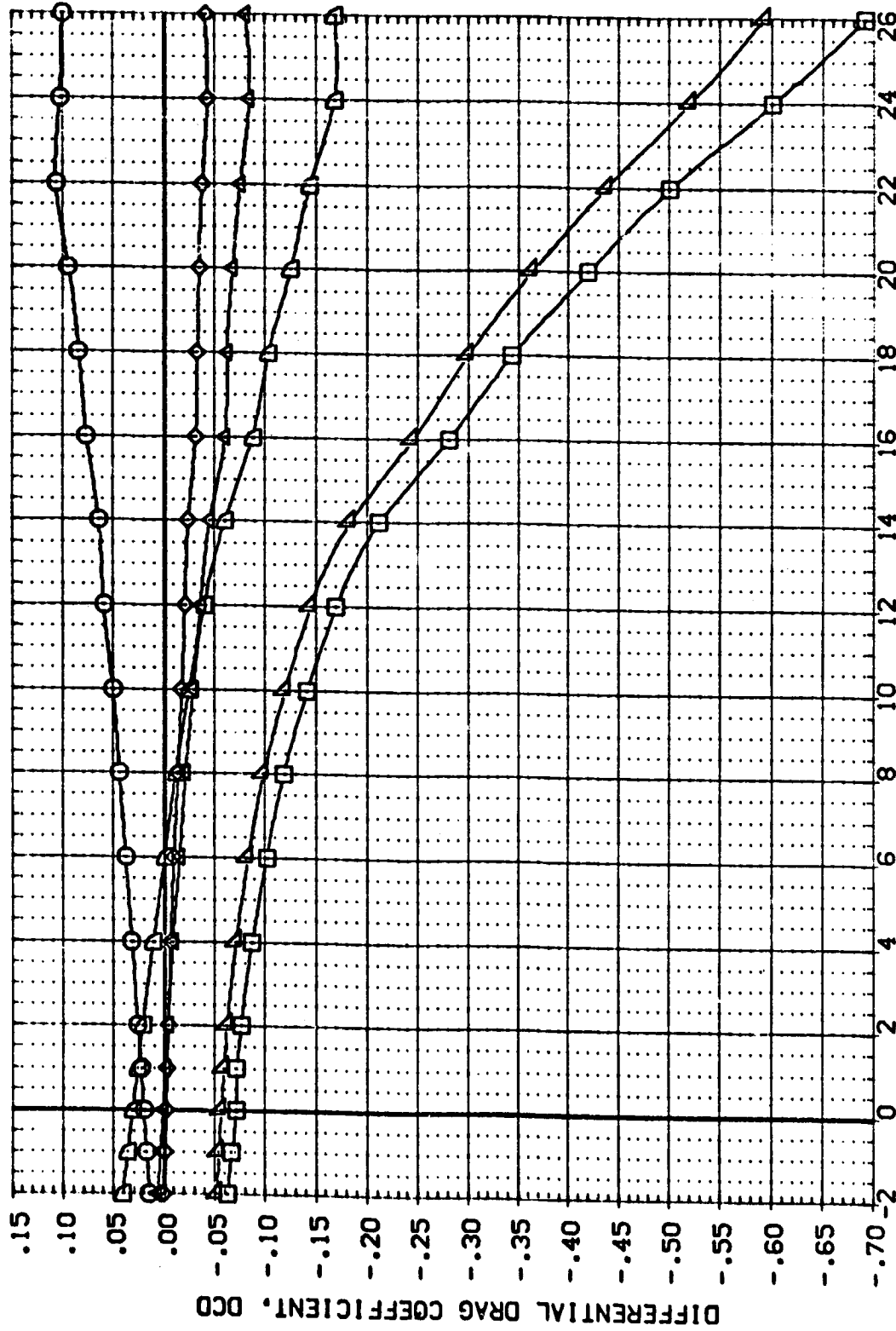


FIGURE 25 089B ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DELTON	AILRON	BOFLAP	SPOBRK	REFERENCE INFORMATION
(HPP029)	DA17,LTPT 38,OR82A,(B)OC507F4	9.800	.000	-14.250	24.920	SREF 87.1560 SQ.IN.
(HPP030)	DA17,LTPT 38,OR82A,(B)OC507F4	5.150	.000	-14.250	24.920	LREF 19.9245 INCHES
(HPP031)	DA17,LTPT 38,OR82A,(B)OC507F4	-5.280	.000	-14.250	24.920	BREF 14.0502 INCHES
(HPP032)	DA17,LTPT 38,OR82A,(B)OC507F4	-9.430	.000	-14.250	24.920	XVREF 13.1469 INCHES
(HPP033)	DA17,LTPT 38,OR82A,(B)OC507F4	-19.200	.000	-14.250	24.920	YVREF .0000 INCHES
(HPP034)	DA17,LTPT 38,OR82A,(B)OC507F4	-24.500	.000	-14.250	24.920	ZVREF 6.0000 INCHES
						SCALE .0150

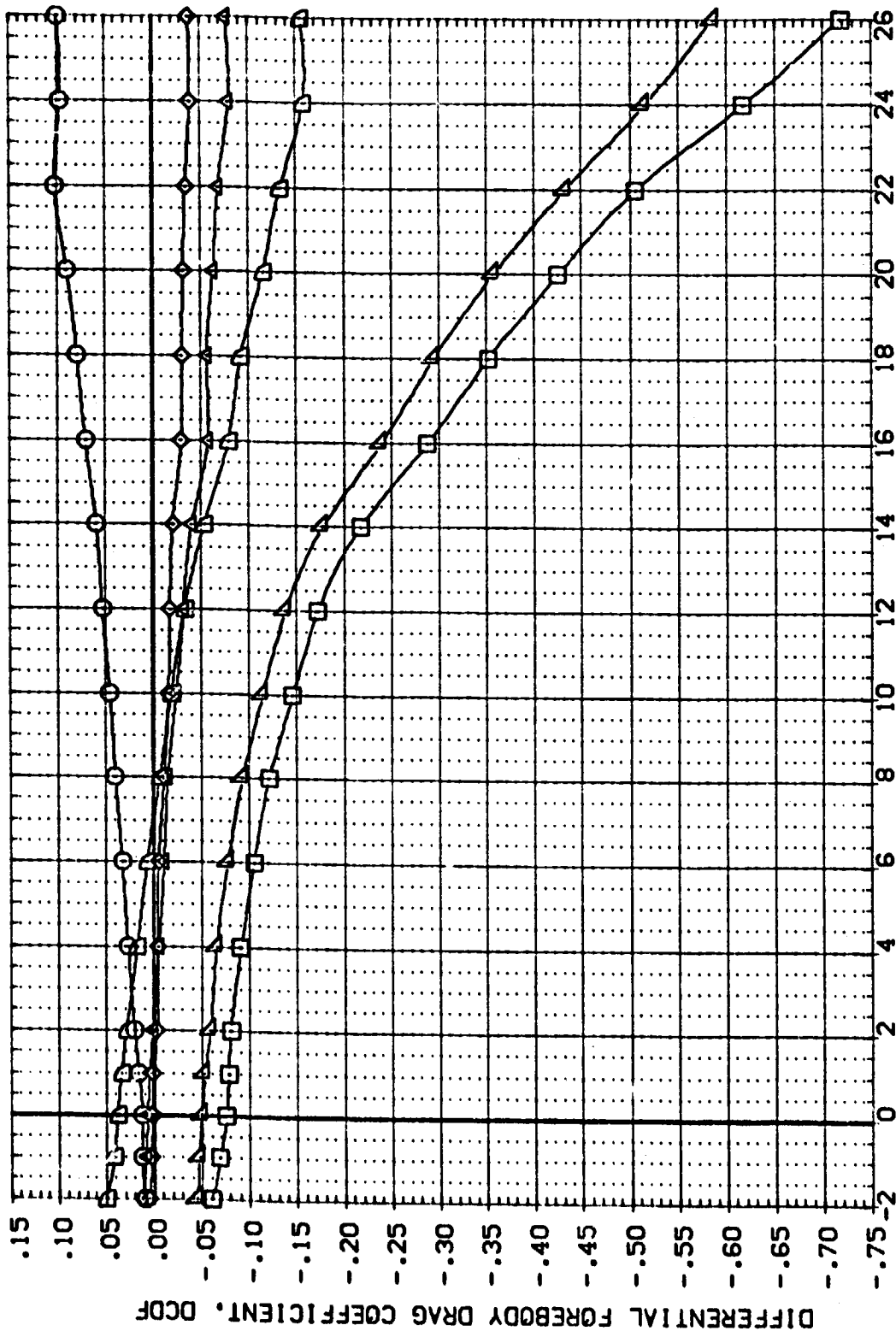


FIGURE 25 089B ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

(AJRN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DEL VON	AILRON	BOFLAP	SPOBRK	REFERENCE INFORMATION
(HPP029)	DA17.LTPT138.0R82A.(810C507F4	9.800	.000	-14.250	24.920	87.1560 SO.IN.
(HPP030)	DA17.LTPT138.0R82A.(810C507F4	5.150	.000	-14.250	24.920	19.9245 INCHES
(HPP031)	DA17.LTPT138.0R82A.(810C507F4	5.080	.000	-14.250	24.920	14.0502 INCHES
(HPP032)	CA17.LTPT138.0R82A.(810C507F4	-8.400	.000	-14.250	24.920	13.1469 INCHES
(HPP033)	CA17.LTPT138.0R82A.(810C507F4	-19.200	.000	-14.250	24.920	6.0000 INCHES
(HPP034)	CA17.LTPT138.0R82A.(810C507F4	-24.500	.000	-14.250	24.920	6.0000 INCHES
(HPP035)						.0150 SCALE

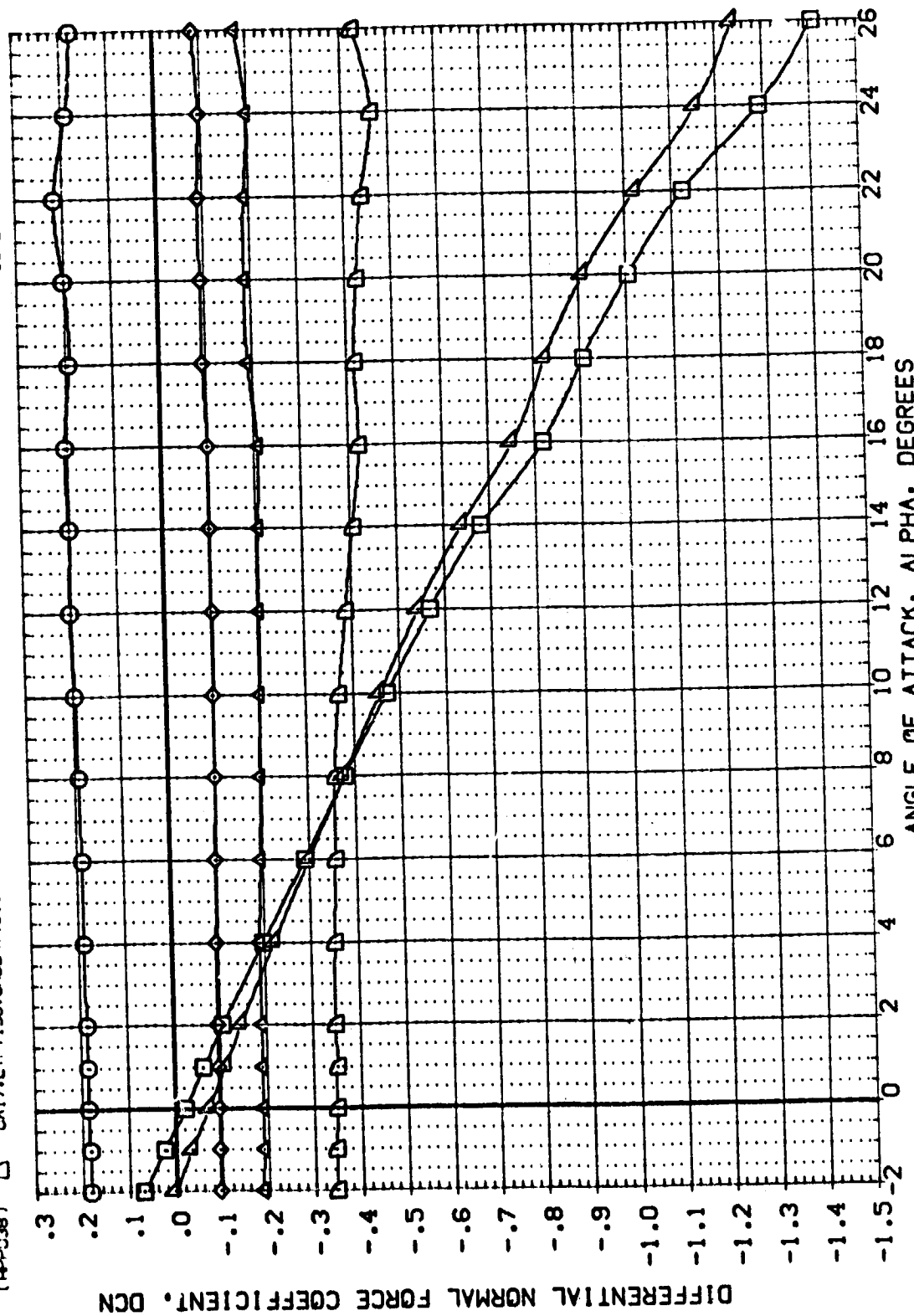


FIGURE 25 0898 ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

(AJRN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DELTON	AIRLON	BOFLAP	SPOBRK	REFERENCE INFORMATION	SD, IN.
(-PP029)	DA17.LTPT138.CRB2A.(B10C507F4	9.800	.000	-14.250	24.920	SREF	87.1560
(-PP030)	DA17.LTPT138.CRB2A.(B10C507F4	5.150	.000	-14.250	24.920	LREF	19.9245
(-PP031)	DA17.LTPT138.CRB2A.(B10C507F4	-5.080	.000	-14.250	24.920	BREF	14.0502
(-PP032)	DA17.LTPT138.CRB2A.(B10C507F4	-5.400	.000	-14.250	24.920	XMRP	13.1469
(-PP033)	DA17.LTPT138.CRB2A.(B10C507F4	-19.200	.000	-14.250	24.920	YMRP	6.0000
(-PP034)	DA17.LTPT138.CRB2A.(B10C507F4	-24.500	.000	-14.250	24.920	ZMRP	.0150
						SCALE	INCHES

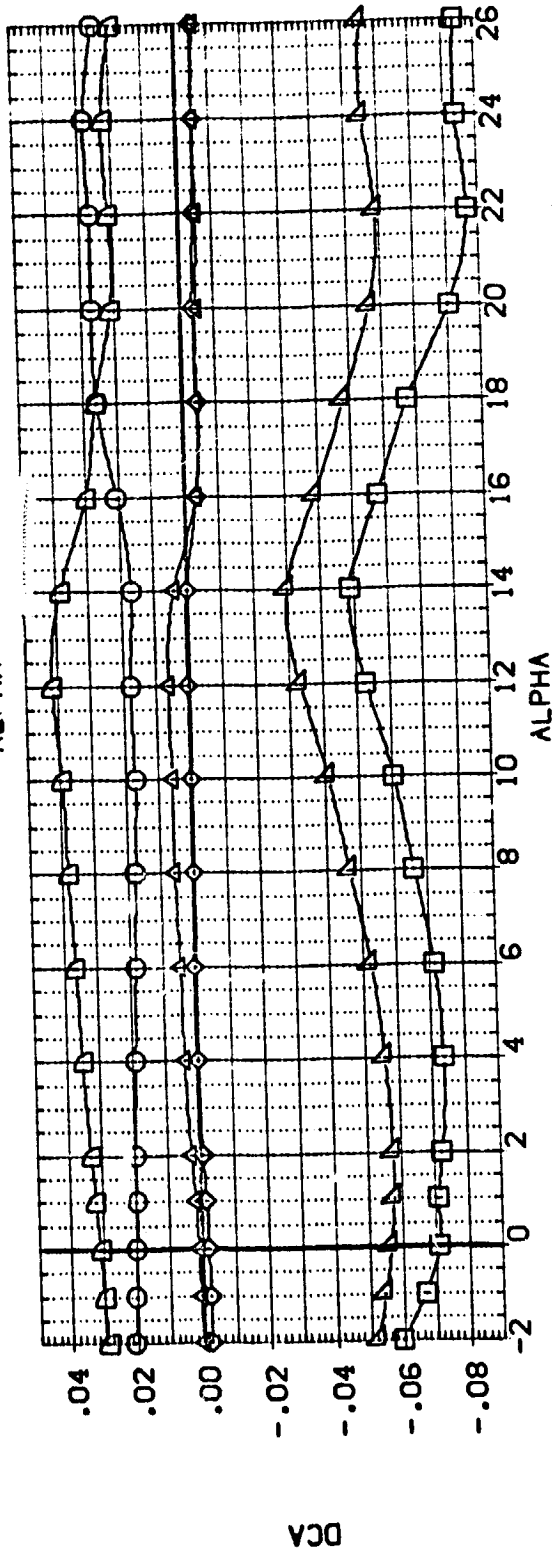
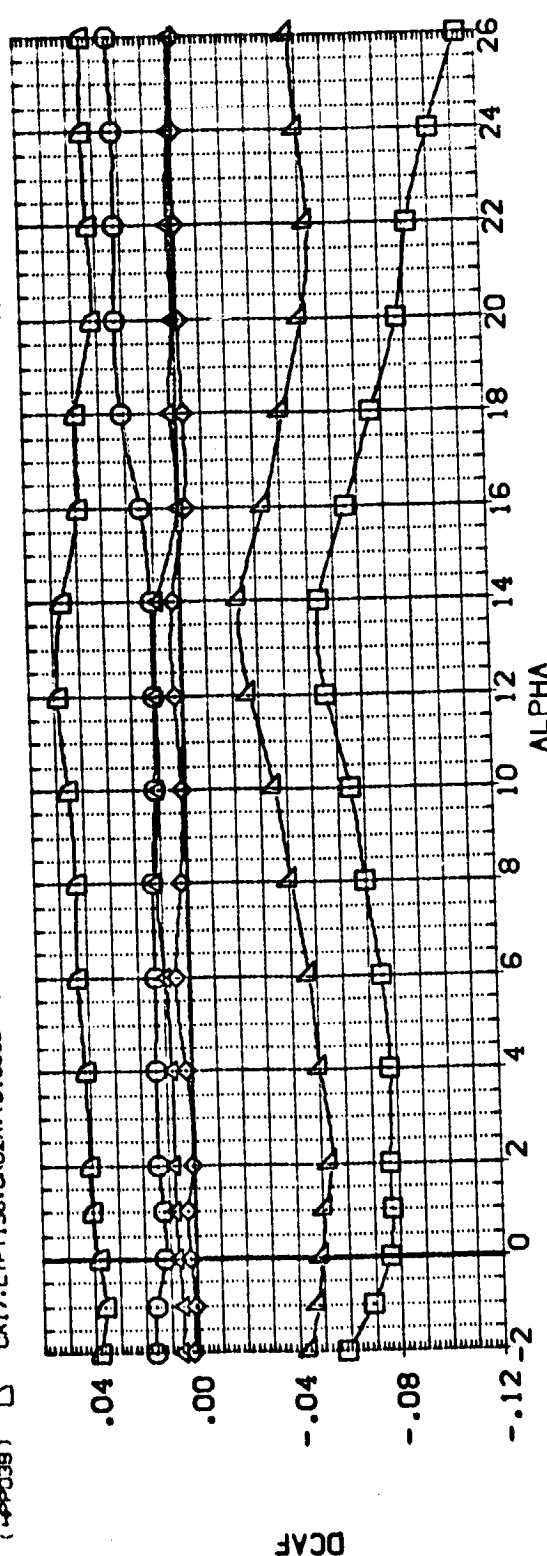


FIGURE 25 089B ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 10.00

DATA SET SYMBL. CONFIGURATION DESCRIPTION

DA17.LTPT138.CRB2A.(B10C507F4
DA17.LTPT138.CRB2A.(B10C507F4
DA17.LTPT138.CRB2A.(B10C507F4
DA17.LTPT138.CRB2A.(B10C507F4
DA17.LTPT138.CRB2A.(B10C507F4
DA17.LTPT138.CRB2A.(B10C507F4

DA17.LTPT138.CRB2A.(B10C507F4
DA17.LTPT138.CRB2A.(B10C507F4
DA17.LTPT138.CRB2A.(B10C507F4
DA17.LTPT138.CRB2A.(B10C507F4
DA17.LTPT138.CRB2A.(B10C507F4
DA17.LTPT138.CRB2A.(B10C507F4

M31(V87E18)(VSR5)
M31(V87E18)(VSR5)
M31(V87E18)(VSR5)
M31(V87E18)(VSR5)
M31(V87E18)(VSR5)
M31(V87E18)(VSR5)

DELTON 9.800
9.150
-5.080
-9.400
-19.200
-24.500

AIRLN .000
.000
.000
.000
.000
.000

BOFLAP -14.250
-14.250
-14.250
-14.250
-14.250
-14.250

SPOBRK 24.920
24.920
24.920
24.920
24.920
24.920

REFERENCE INFORMATION
SREF 87.1560 INCHES
LREF 19.5245 INCHES
BREF 14.0502 INCHES
XMRP 13.1469 INCHES
YMRP .0000 INCHES
ZMRP 6.0000 INCHES
SCALE .0150

DIFFERENTIAL PITCHING MOMENT COEFFICIENT (FORWARD C.G.), DCLMFD

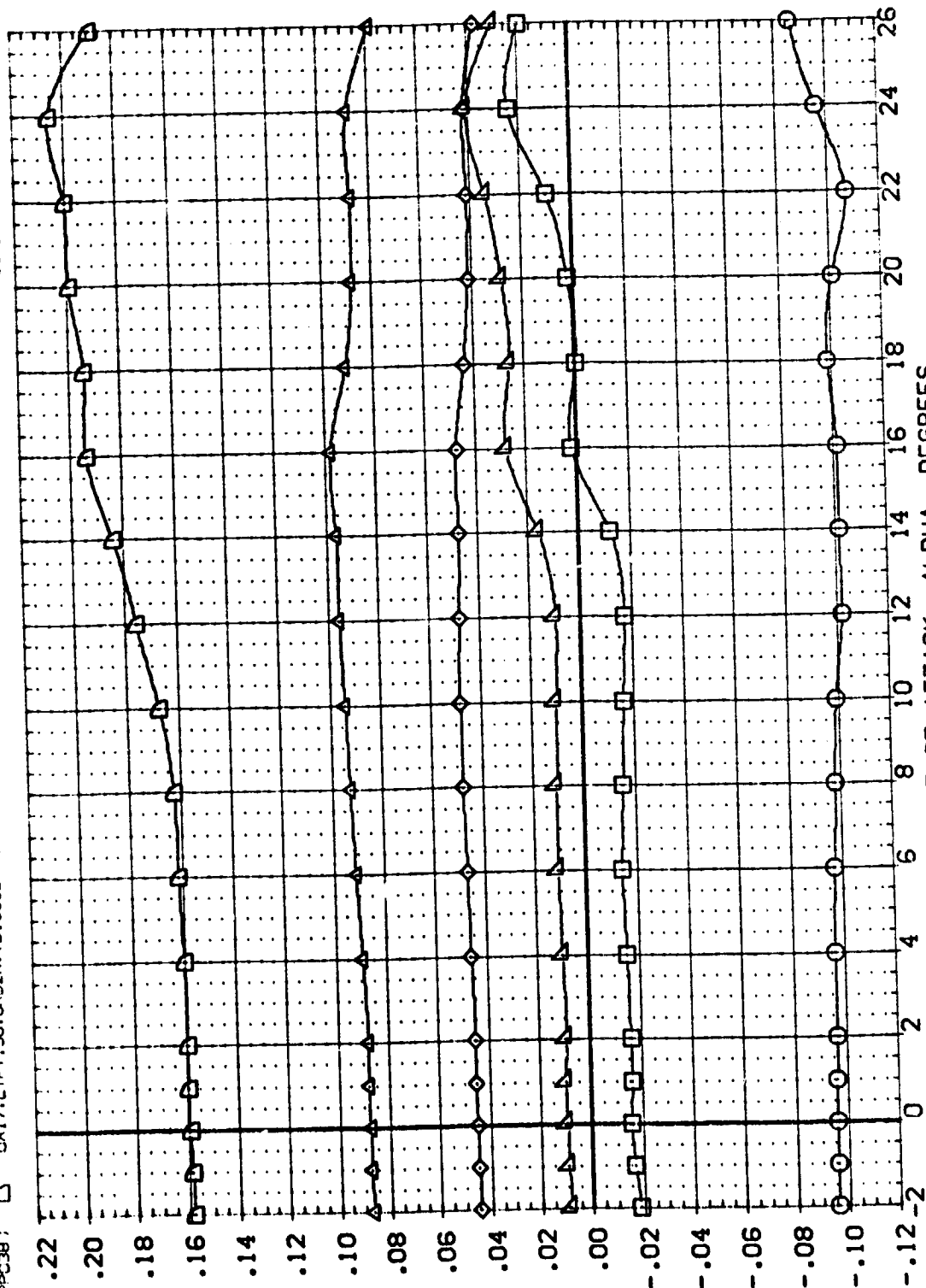


FIGURE 25 089B ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

(AJRN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DELTON	AILRON	BOFLAP	SPOBRK	REFERENCE INFORMATION
(FPC029)	CA17,LTPT138,DRB2A,(B)DC507F4	M3(V37E18)(VSKS)	.000	-14.250	24.920	SREF 87.1550 50 IN.
(FPC30)	CA17,LTPT138,DRB2A,(B)DC507F4	M3(V37E18)(VSKS)	.000	-14.250	24.920	LREF 19.9245 INCHES
(FPC31)	CA17,LTPT138,DRB2A,(B)DC507F4	M3(V37E18)(VSKS)	.000	-14.250	24.920	BREF 14.0502 INCHES
(FPC32)	CA17,LTPT138,DRB2A,(B)DC507F4	M3(V37E18)(VSKS)	.000	-14.250	24.920	XREF 13.1469 INCHES
(FPC33)	CA17,LTPT138,DRB2A,(B)DC507F4	M3(V37E18)(VSKS)	.000	-14.250	24.920	YREF .0000 INCHES
(FPC34)	CA17,LTPT138,DRB2A,(B)DC507F4	M3(V37E18)(VSKS)	.000	-14.250	24.920	ZREF 6.0000 INCHES
(FPC35)	CA17,LTPT138,DRB2A,(B)DC507F4	M3(V37E18)(VSKS)	.000	-14.250	24.920	SCALE .0150
(FPC36)						
(FPC37)						
(FPC38)						

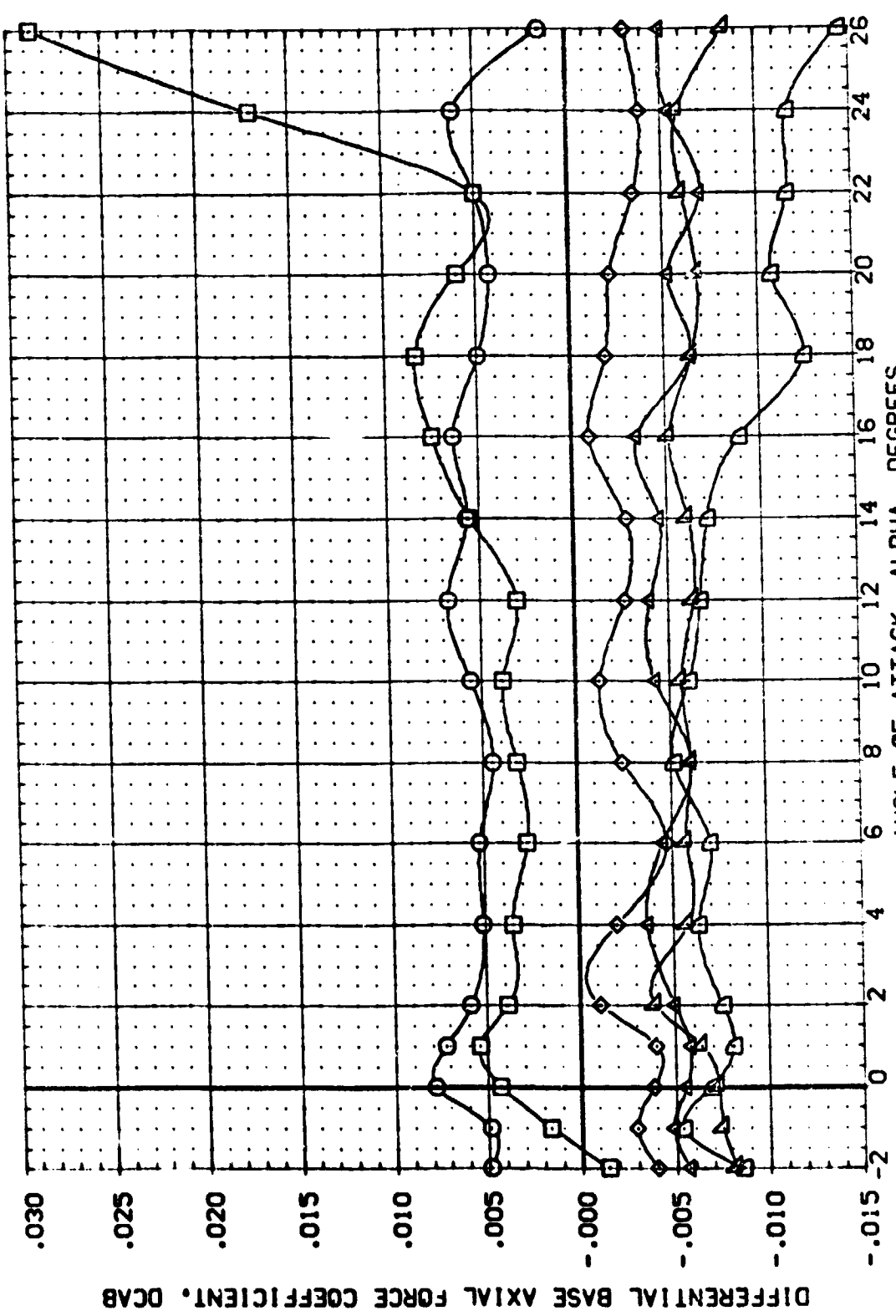


FIGURE 25 0898 ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 10.00

0A17.LTPT138.0R82A.(B10C507F4 M3)(W87E18)(VSR5)(NPP029)

SYMBOL	ALPHA	RN/L	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
□	.000		4.700	DELTON	87.1560
□	10.000	ALLRON	.000	DELTON	19.9245
◇	20.000	SPDRK	24.920	DELTON	14.0502
△	30.000	BETA	.000	DELTON	13.1469
				DELTON	17.000
				DELTON	6.000
				DELTON	.0150
				DELTON	SCALE

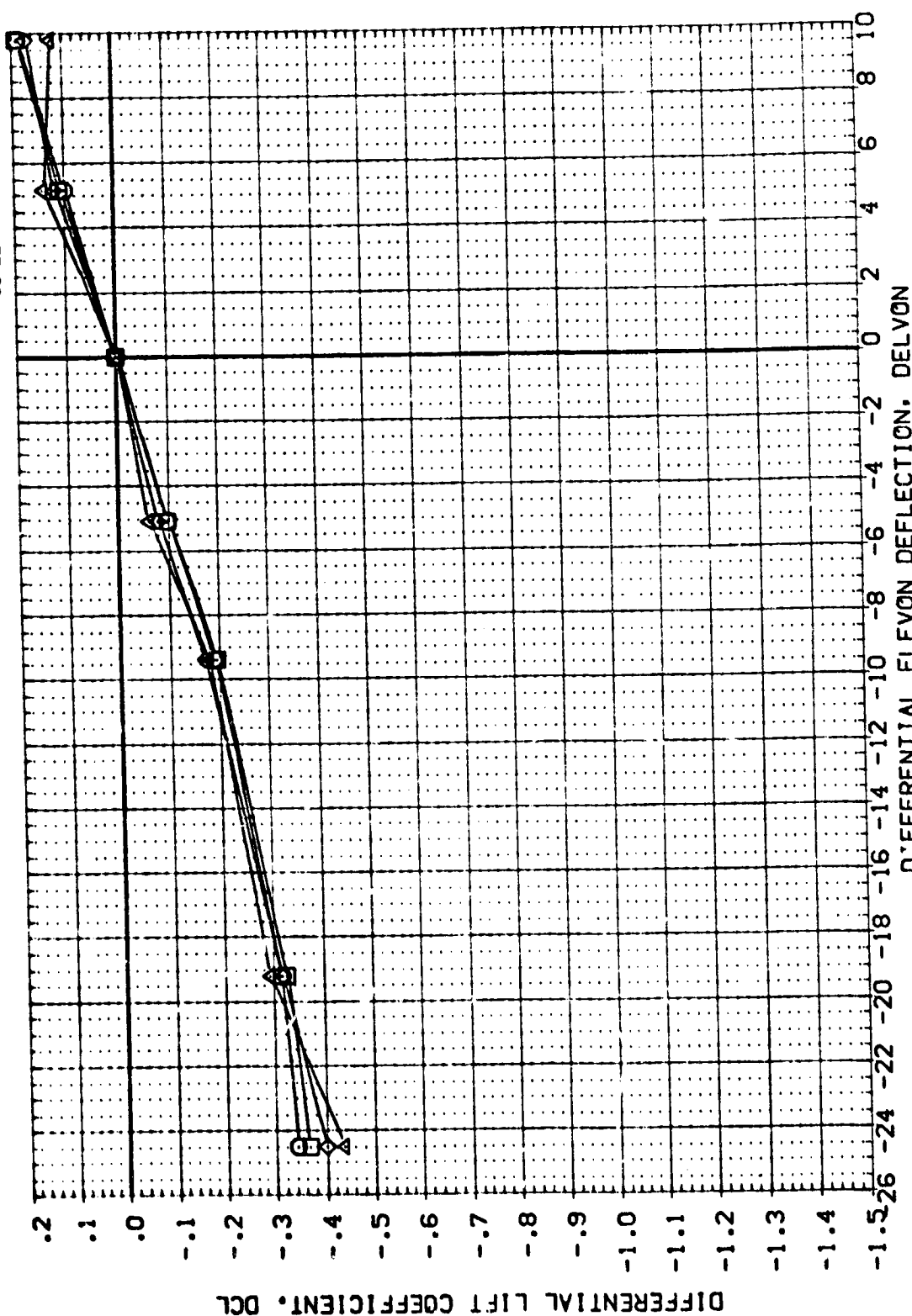


FIGURE 25 0898 ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

0A17 LTPT138.0R82A.(B10C507F4 M3)(W87E18)(V5R5)(NPP029)

SYMBOL	ALPHA	RN/L	PARAMETRIC VALUES	DATA SOURCE	DELTON	DELTON	REFERENCE INFORMATION
□	.000		4.700	9.800	9.800	5.150	87.1560
□	10.000	AILRON	.000	-14.250	NPP029	5.150	19.9245
□	20.000	SPDRK	24.920	.000	NPP032	5.150	14.0502
△	30.000	BETA	.000	-9.400	NPP035	5.150	13.1469
				-24.500	NPP038	5.150	6.0000
						SCALE	6.0000
							SCALE

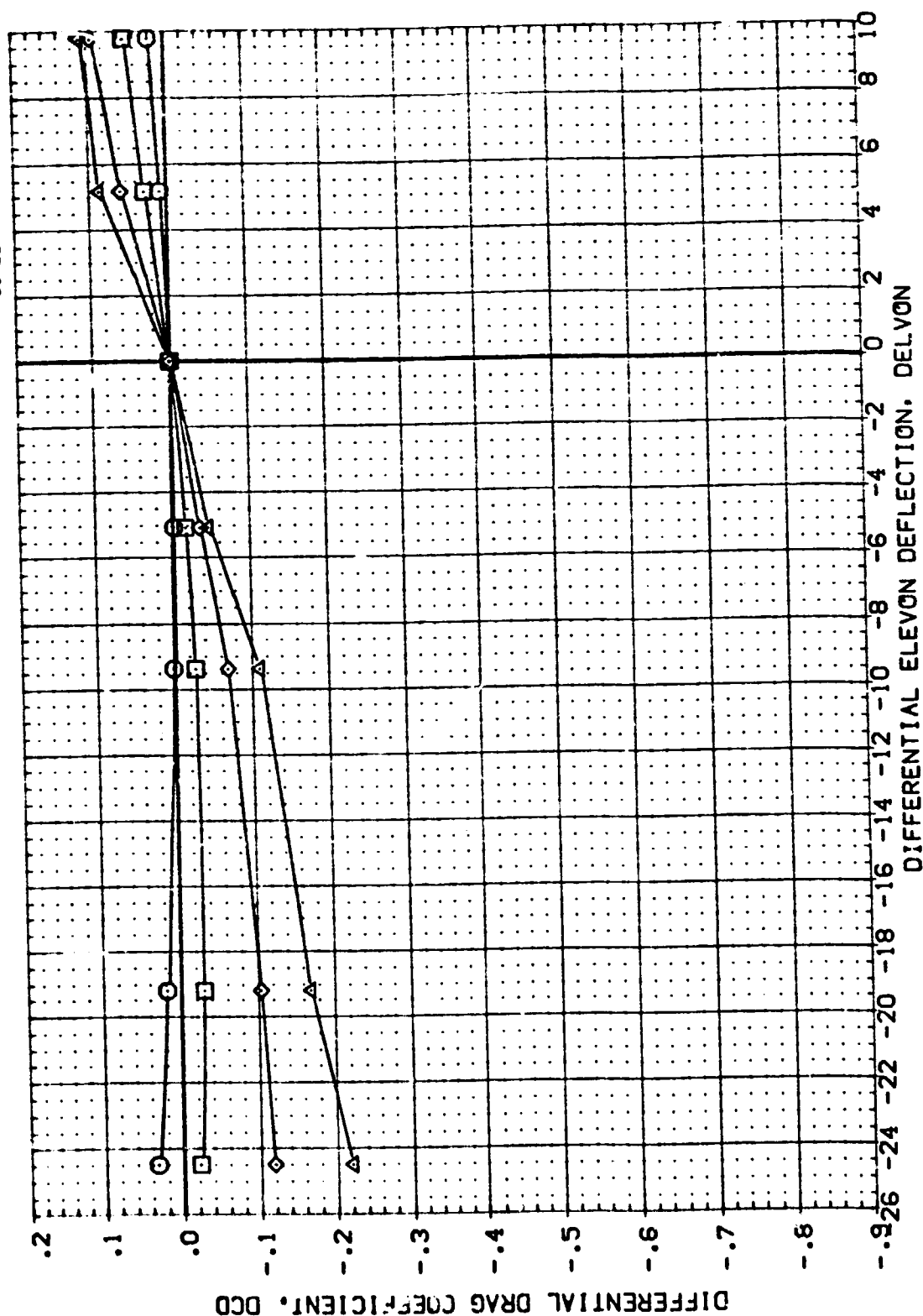


FIGURE 25 0898 ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

0A17.LIPT138.ORB2A.(810C5D7F4 M3)(W87E18)(V5R5)(NPP029)

SYMBOL	ALPHA	RV/L	PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION	
○	.000	RV/L	10.000	ELEVON	9.800	DATASET	DELTON	SREF	87.1560
□	10.000	AILRON	.000	BOFLAP	-14.250	NPP029	9.800	LREF	19.9245
◇	20.000	SPO3RK	24.920	RUDER	.000	NPP027	.000	BREF	14.0502
△	30.000	BETA	.000		.000	NPP036	-9.400	XREF	13.1469
						NPP038	-24.500	YREF	.0000
								ZREF	6.0000
								SCALE	.0150

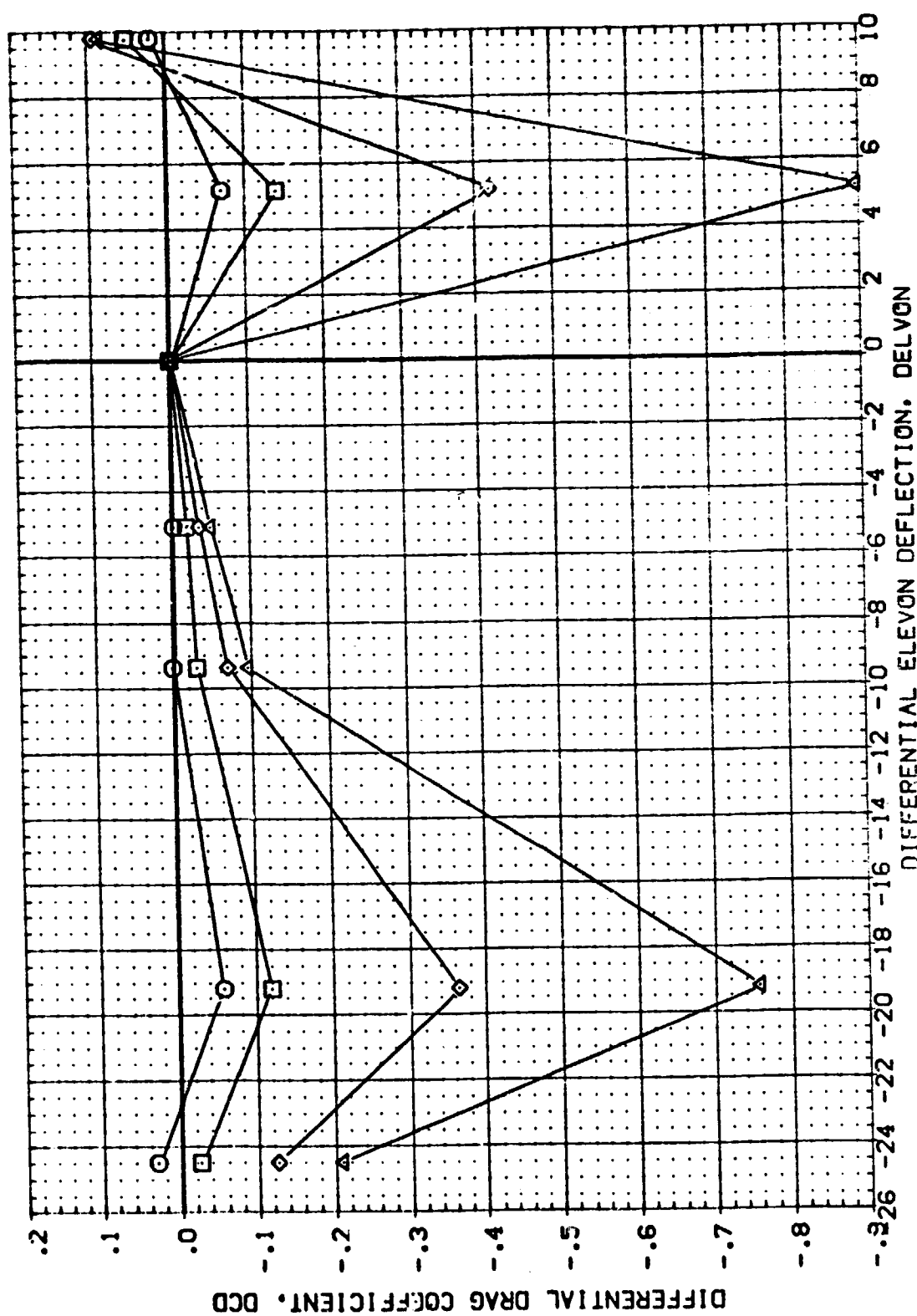
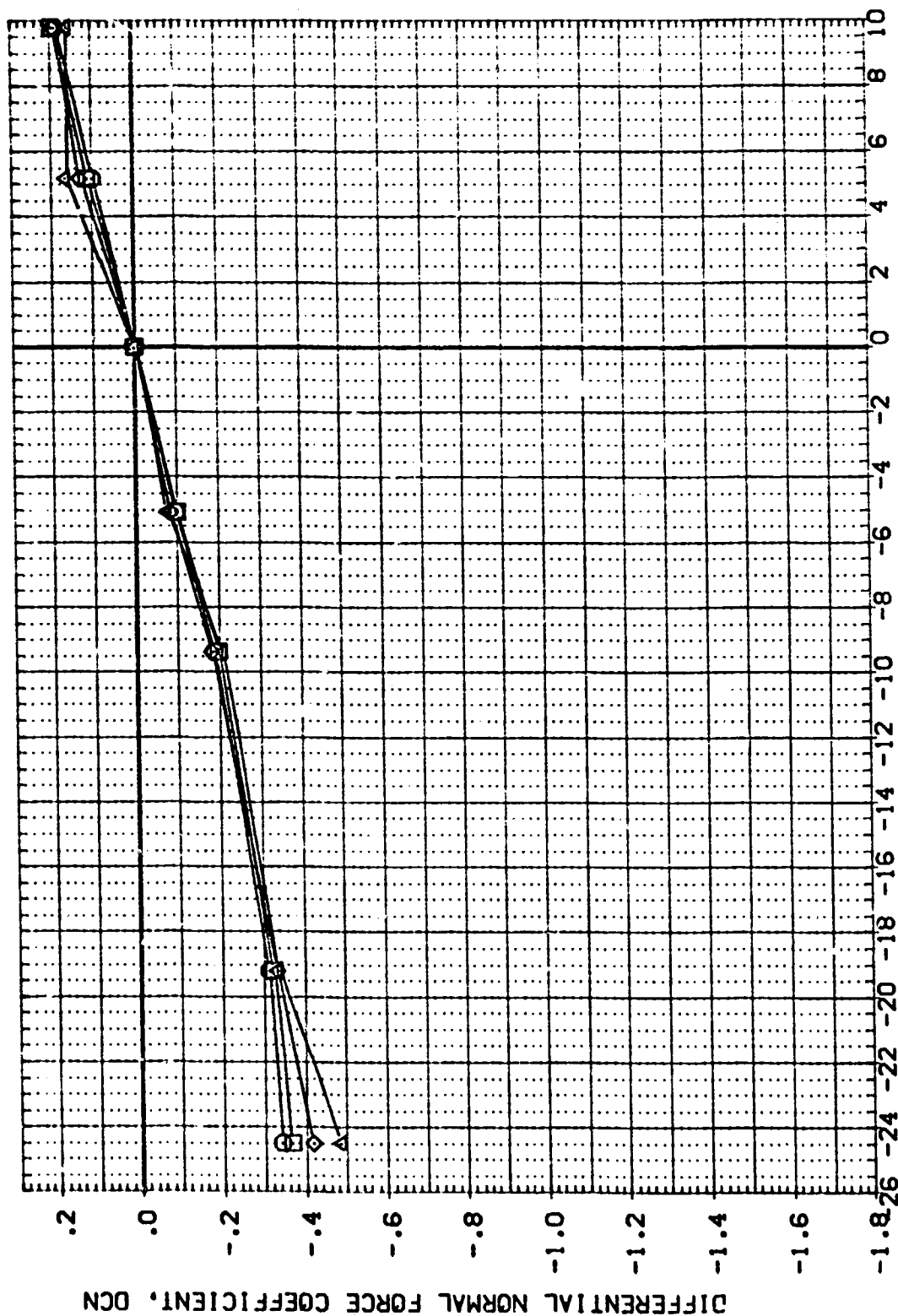


FIGURE 25 089B ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

0A17.LTPT138.0RB2A.(B10C5D7F4 M3)(W87E18)(V5R5)(NPP029)

SYMBOL	ALPHA	RN/L	PARAMETRIC VALUES	DATA SET	DELTON	DATA SOURCE	DELTON	SREF	REFERENCE INFORMATION
□	.000		4.700	9.800	DELTON			REF	87.1560
◇	10.000	AILRON	.000	-14.250	NPP029		5.150	REF	19.9245
◇	20.000	SPOBRK	24.920	.000	NPP032		-5.080	REF	14.0502
△	30.000	BETA	.000	NPP036	NPP035		-19.200	REF	13.1469
								YMRP	.0000
								ZMRP	6.0000
								SCALE	.0150



DIFFERENTIAL ELEVON DEFLECTION, DELTON

FIGURE 25 089B ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

0A17.LTPT138.0R82A.(B10C507F4 M3)(W87E18)(V5R5)(NPP029)

SYMBOL	ALPHA	RV/L	PARAMETRIC VALUES	DATA SOURCE	DATASET	DELTON	SREF	REFERENCE INFORMATION
○	.000	10.000	ELEVON	9.800	NPP030	5.150	LREF	87.1560 SQ. IN.
□	10.000	.000	BOFLAP	-14.2	NPP029	-5.080	BREF	19.9245 INCHES
◇	20.000	24.920	RJJOER	.000	NPP032	-19.200	VMRP	14.0502 INCHES
△	30.000	.000	BETA	-9.400	NPP035	-19.200	VMRP	13.1469 INCHES
				-24.500			ZMRP	6.0000 INCHES
							SCALE	.0150 SCALE

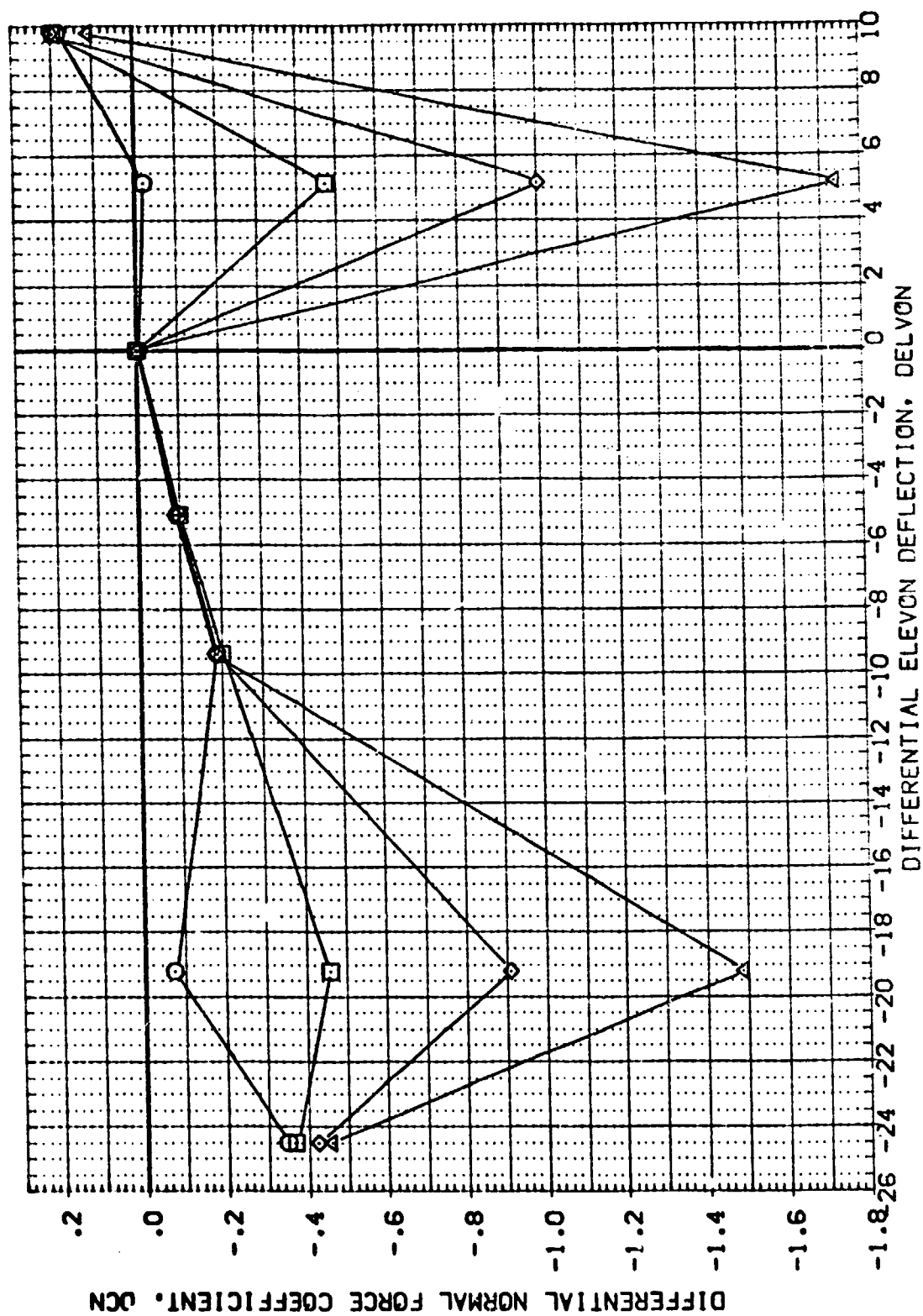
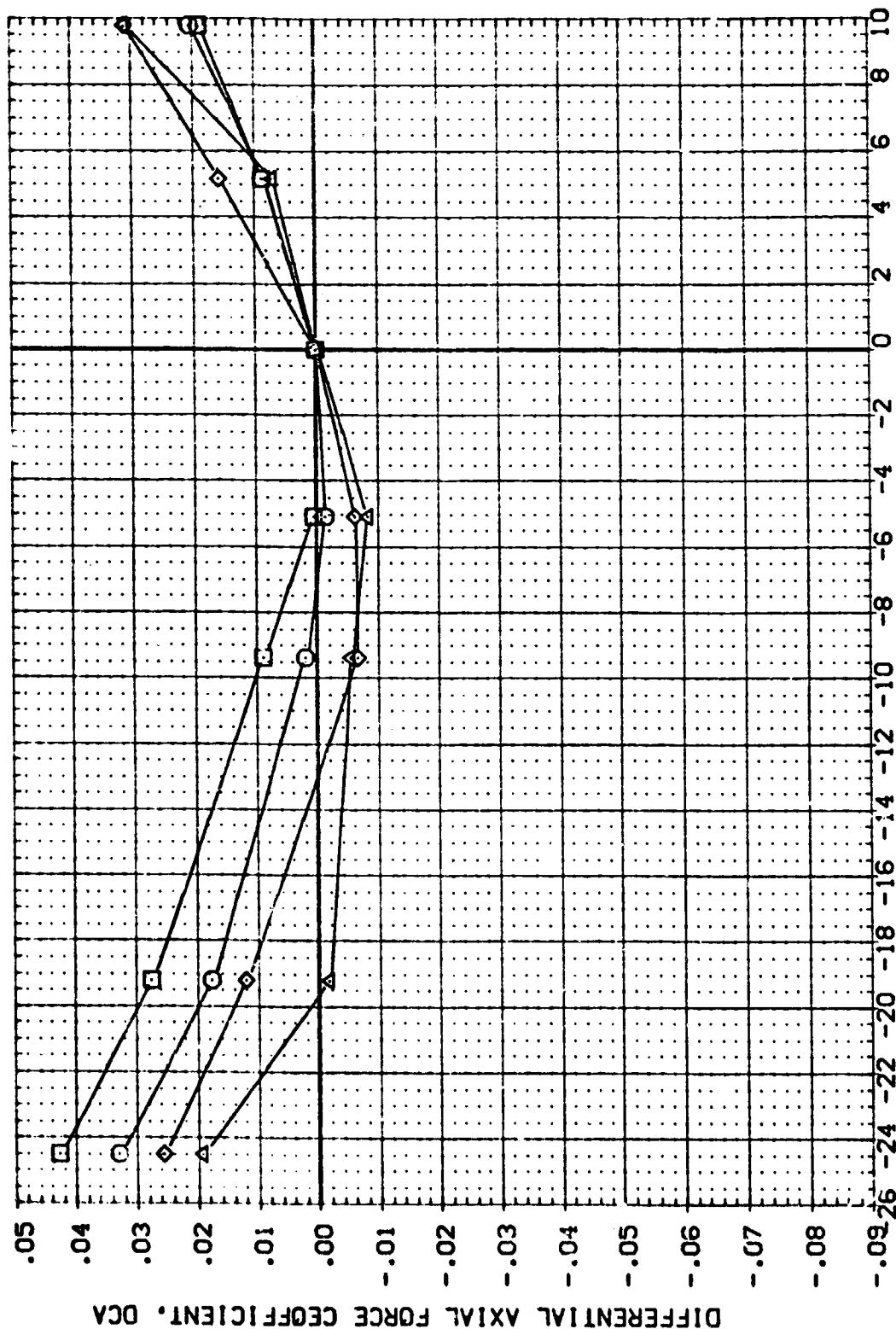


FIGURE 25 089B ORBITER ELEVON DEFLECTION INCRMENTAL EFFECTS

0A17.LTPT138.0R82A.(B10C507F4 M3)(W87E18)(V5R5)(NPP029)

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
□	.000	RNVL	DELTON	SREF
○	10.000	AILRON	DELTON	LREF
◇	20.000	SPOBRK	DELTON	BREF
△	30.000	BETA	DELTON	YREF
			DELTON	ZREF
			DELTON	SCALE
			DELTON	SCALE



DIFFERENTIAL ELEVON DEFLECTION. DELTON

FIGURE 25 089B ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	.000	RN/L	DELTON	DELTON
□	10.000	BOFLAP	9.800	9.800
◇	20.000	RUDDER	9.800	9.800
△	30.000	BETA	9.800	9.800

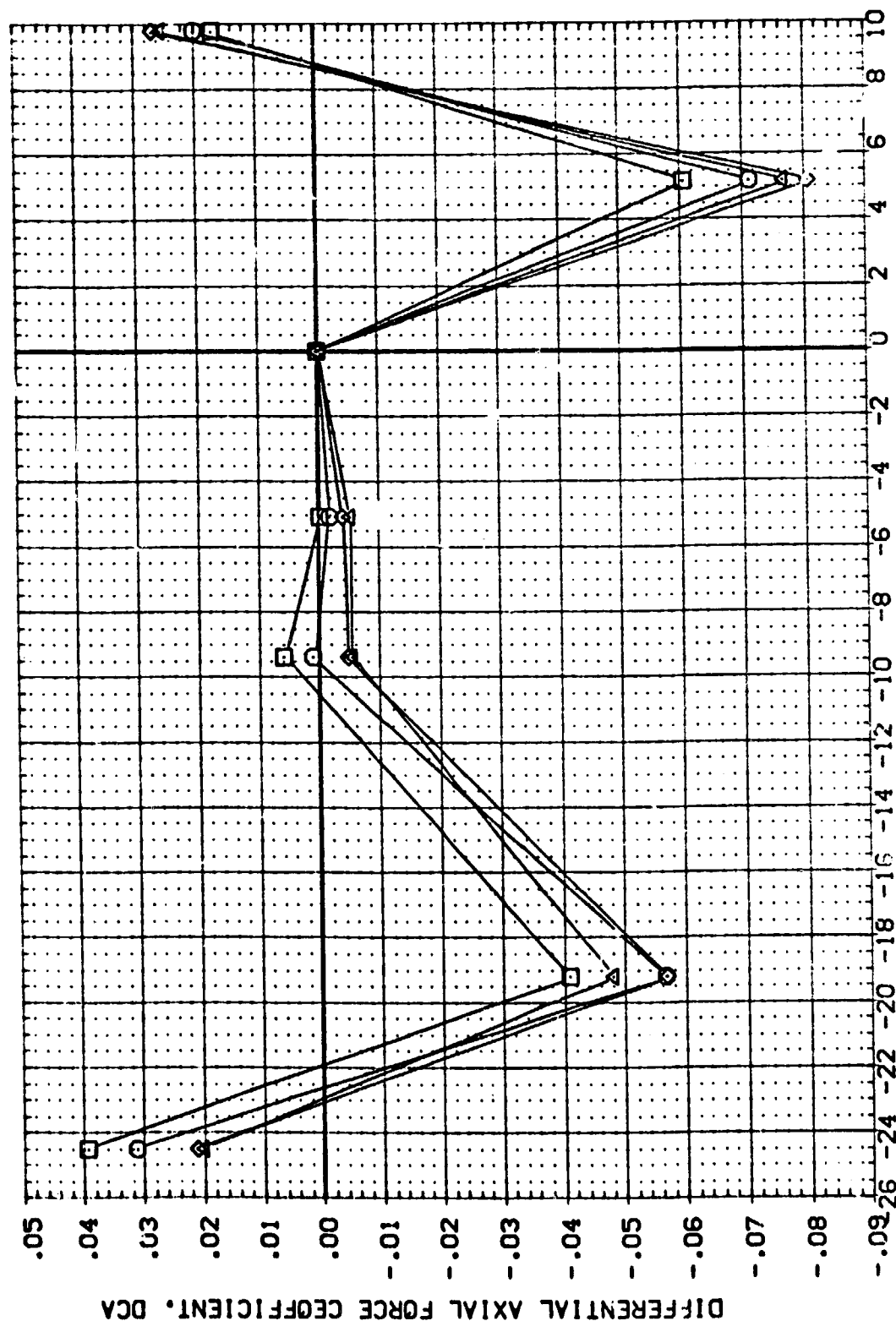


FIGURE 25 089B ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	.000	4.700 ELEVON	DELTON	SREF 87.150 SO INCHES
□	10.000	.000 BOFLAP	9.800	LREF 19.925 INCHES
◇	20.000	24.920 RUDDER	-14.250 NPO27 NPO32	BREF 14.052 INCHES
△	30.000	.000	-9.400 NPO35 NPO36	XPRP 13.145 INCHES
			-24.500 NPO38	YPRP .000 INCHES
				ZPRP 6.000 INCHES
				SCALE .0150 SCALE

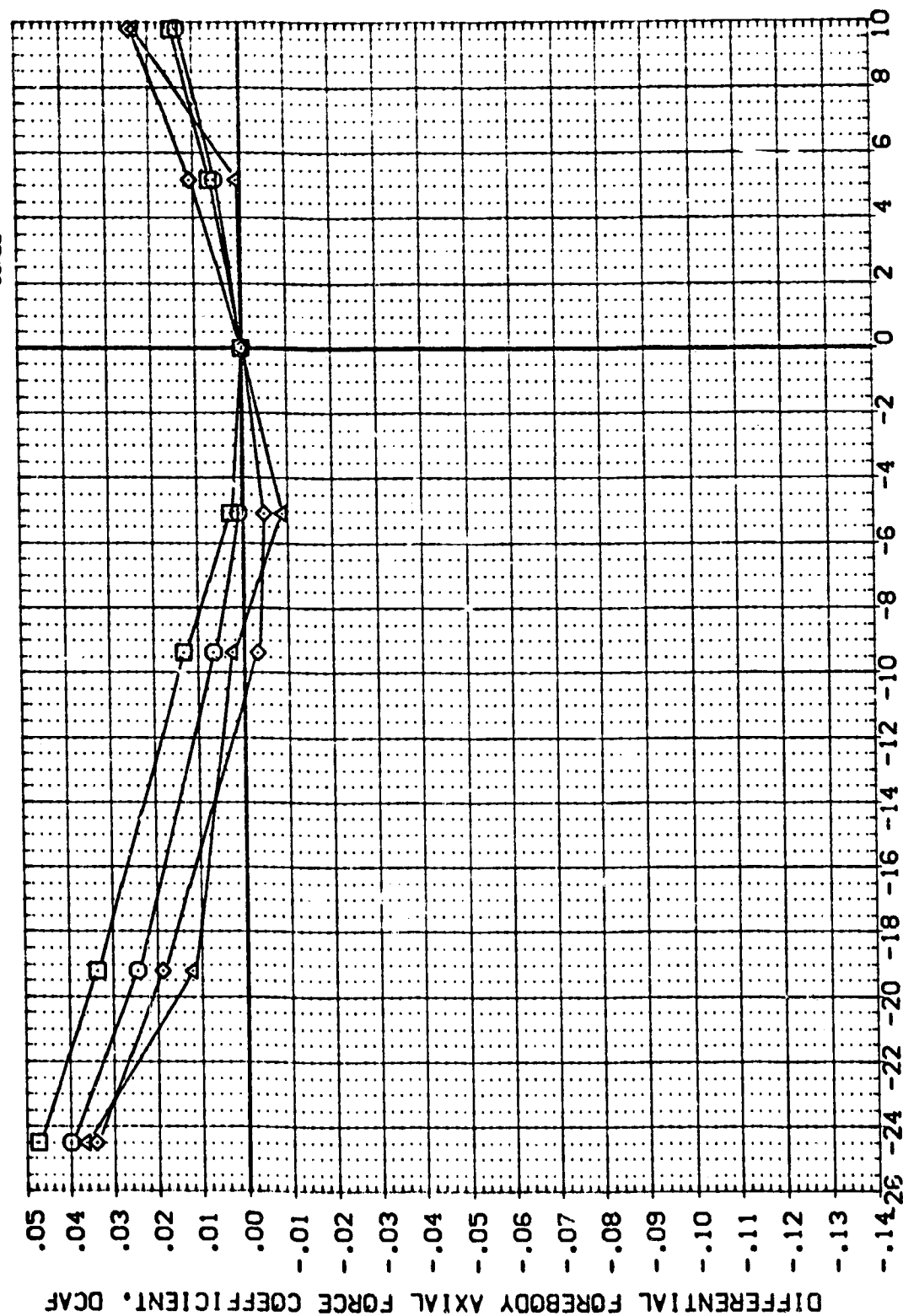


FIGURE 25 089B ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	DELTON	DELTON	REFERENCE INFORMATION
○	.000	RVL	9.800	DELTON	SREF	87.1950
□	.000	FLEVON	-14.250	9.800	REF	19.9245
□	.000	BOFLAP	.000	9.800	REF	14.0502
◇	.000	AI LRON	.000	-9.100	SREF	13.1469
◇	.000	SPORBK	24.920	-24.500	XRRP	.0000
△	.000	RJODER	.000	-24.500	YRRP	.0000
△	.000	BETA	.000	NPO358	ZRRP	6.0000
					SCALE	.0150

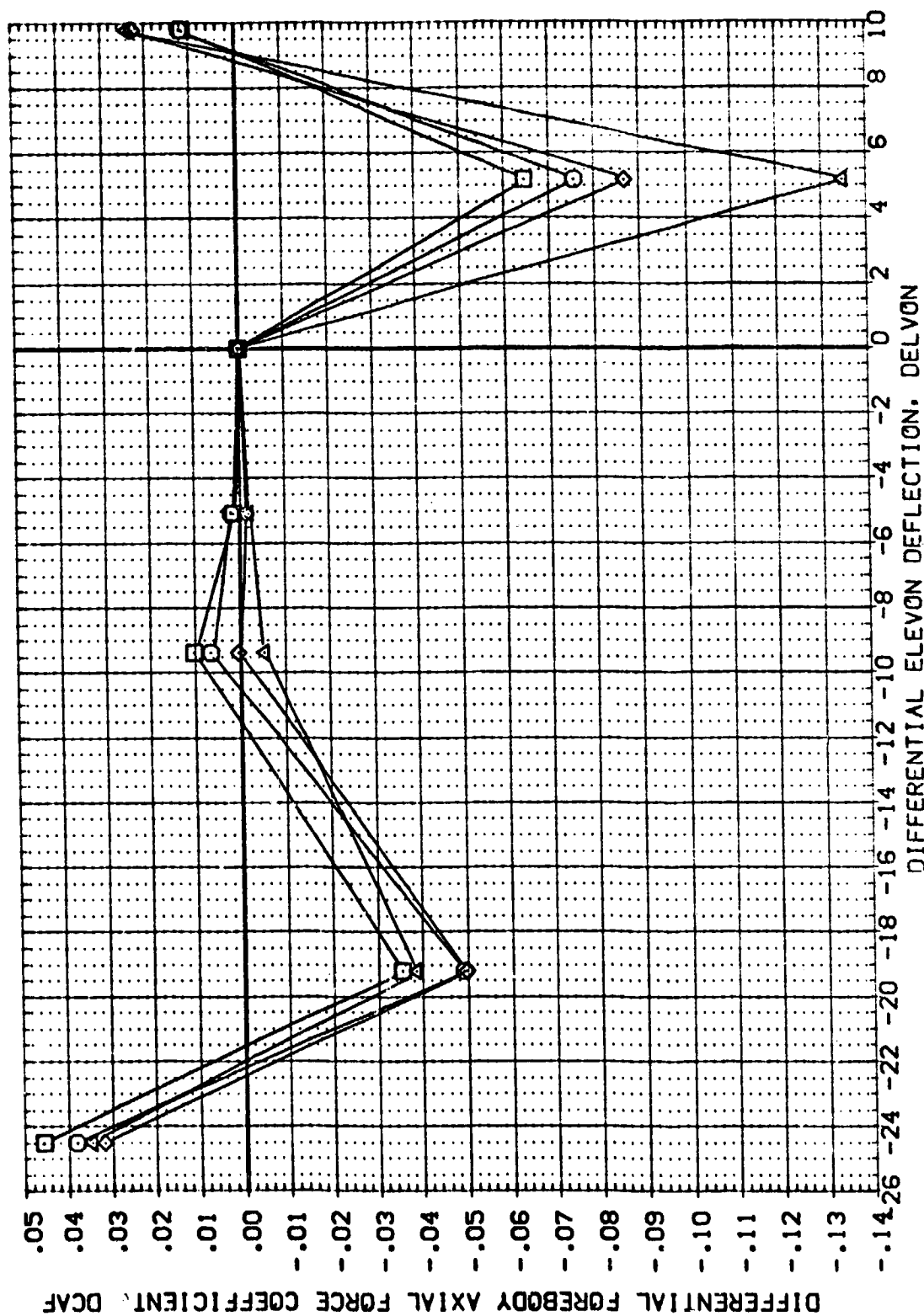


FIGURE 25 089B ORBITER FLEWON DEFLECTION INCREMENTAL EFFECTS

0A17.LTPT138.0R82A.(B10C507F4 M3)(W87E18)(V5R5)(NPP029)

PARAMETRIC VALUES			DATA SOURCE			REFERENCE INFORMATION		
ALPHA	RN/L	ELEVON	DELTON	DELTON	SCALE	REF	SO. IN.	
.000	4.700	9.800	NPP030	5.150	87.1560	REF	INCHES	
10.000	.000	-14.250	NPP029	9.800	19.9245	REF	INCHES	
20.000	24.920	.000	NPP027	.000	14.0502	REF	INCHES	
30.000	.000	NPP036	NPP035	-9.400	13.1469	REF	INCHES	
			NPP038	-24.500	.0000	REF	INCHES	
					6.0000	REF	INCHES	
					.0150	REF	INCHES	

DIFFERENTIAL PITCHING MOMENT COEFFICIENT (FORWARD C.G.), DCLMFD

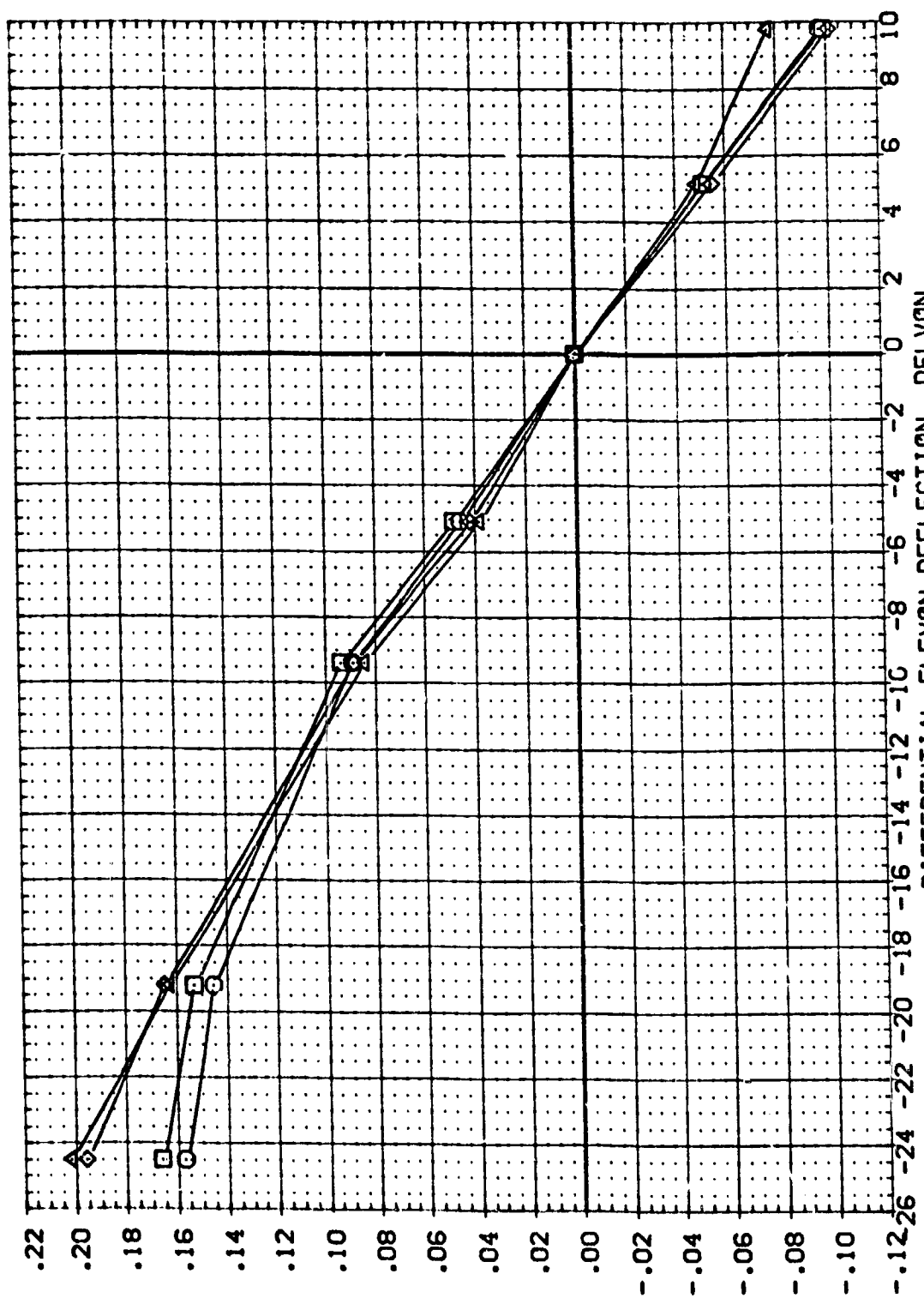


FIGURE 25 089B ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS



0A17.LTPT138.ORB2A.(B10C5D7F4 M3)(W97E18)(V5R5)(NPP029)

PARAMETRIC VALUES				DATA SOURCE		DELTON		REFERENCE INFORMATION	
ALPHA	RV/L	ELEVON	9.900	DATA SET	DELTON	SREF	SO IN.	87.1500	INCHES
.000	.000	80FLAP	-14.250	NPP029	5.150	LREF	19.9245	INCHES	
10.000	.000	RUDER	.000	NPP032	-5.080	BREF	14.0502	INCHES	
20.000	24.920		.000	NPP035	-19.200	XMRP	13.1469	INCHES	
30.000	.000		.000			YMRP	.0000	INCHES	
						ZMRP	6.0000	INCHES	
						SCALE	.0150	SCALE	

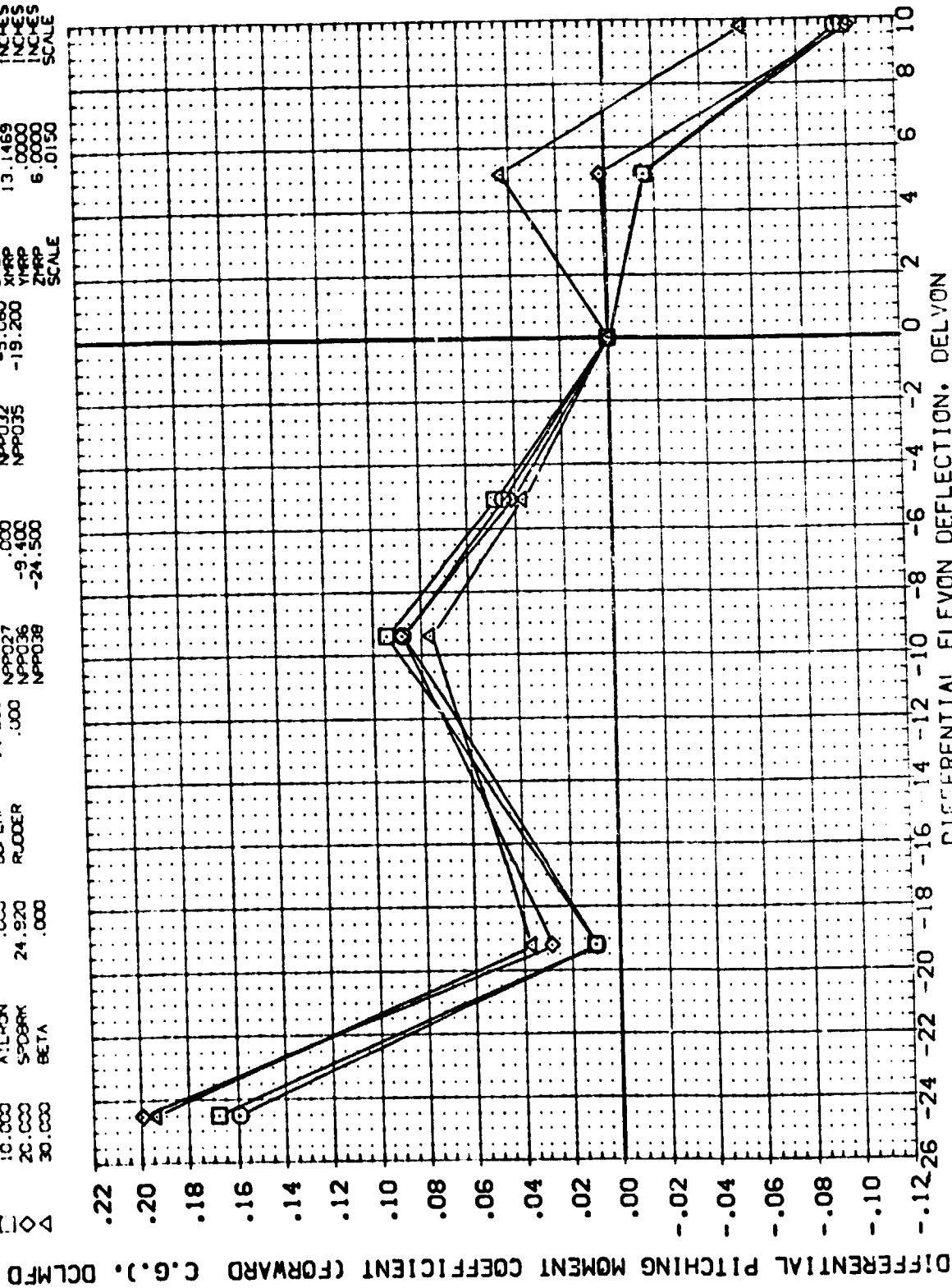


FIGURE 25 089B ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

0A17.LTPT138.0RB2A.(B10C5D7F4 M3)(W87E18)(V5R5)(NPP029)

SYMBOL	ALPHA	R/V/L	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	.000		ELEVON	DELTON	SREF 87.1560
□	10.000	AILRON	BDFLAP	DELTON	LREF 19.9245
◇	20.000	SPDRBK	RUDER	DELTON	BREF 14.0502
△	30.000	BETA		DELTON	XREF 13.1468
				DELTON	YREF 6.0000
				DELTON	ZREF 6.0000
				DELTON	SCALE .0150

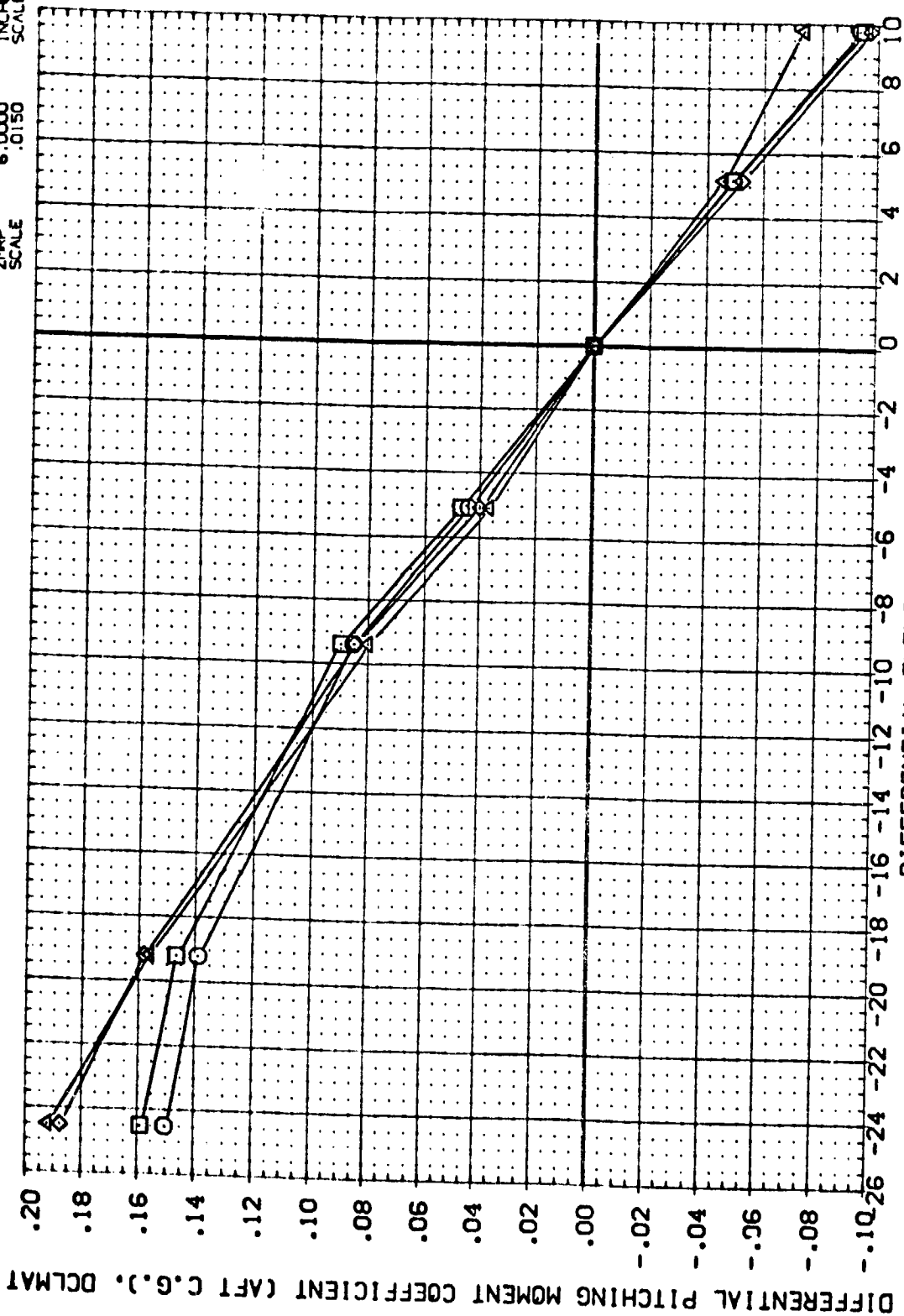


FIGURE 25 089B ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

CA17.LTPT138.0R82A.(B10C507F4 M3)(W87E18)(V5R5)(NPP029)

PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
SYMBOL	ALPHA	RN/L	AILRON	SPC9X	BETA	DELTON	DELTON	SREF	LREF	SO IN.	SCALE
□	.000	10.000	.000	24.920	.000	9.800	5.150	87.1560	19.9245	INCHES	
◇	10.000	.000	BOFLAP	.000	NPP029	.000	-5.080	14.0502	13.1469	INCHES	
△	20.000	24.920	RUDER	.000	NPP032	-9.400	-19.200	.0000	.0000	INCHES	
	30.000	.000		.000	NPP035	-24.500		6.0000	.0150	INCHES	
					NPP038			ZMRP		SCALE	

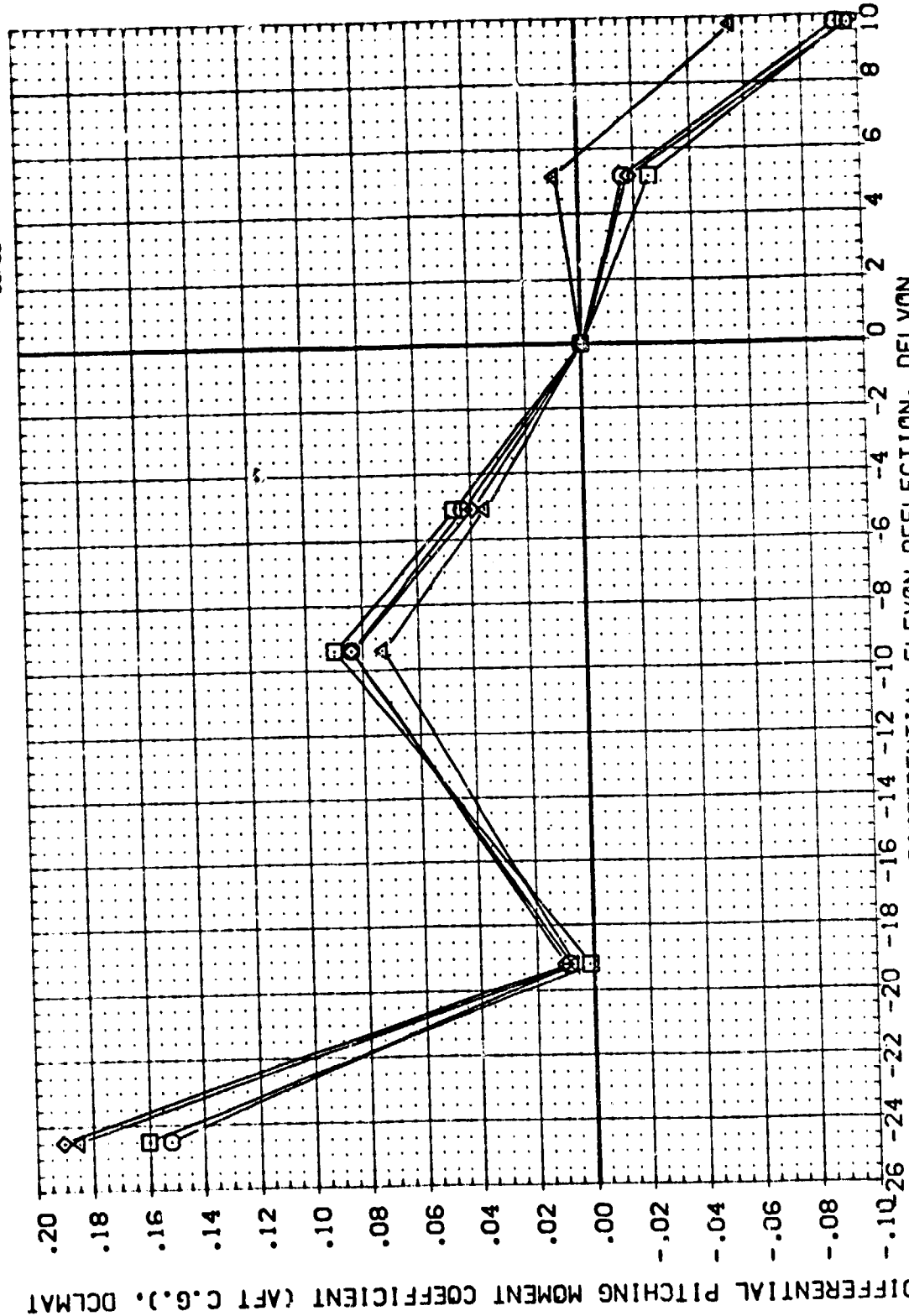


FIGURE 25 089B ORBITER ELEVON DEFLECTION INCREMENTAL EFFECTS

REFERENCE INFORMATION	
SPEF	87.1560 SQ. IN
LREF	19.9745 INCHES
BREF	14.0502 INCHES
XMRP	13.1469 INCHES
YMRP	.0000 INCHES
ZMRP	6.0000 INCHES
SCALE	.0150 SCALE

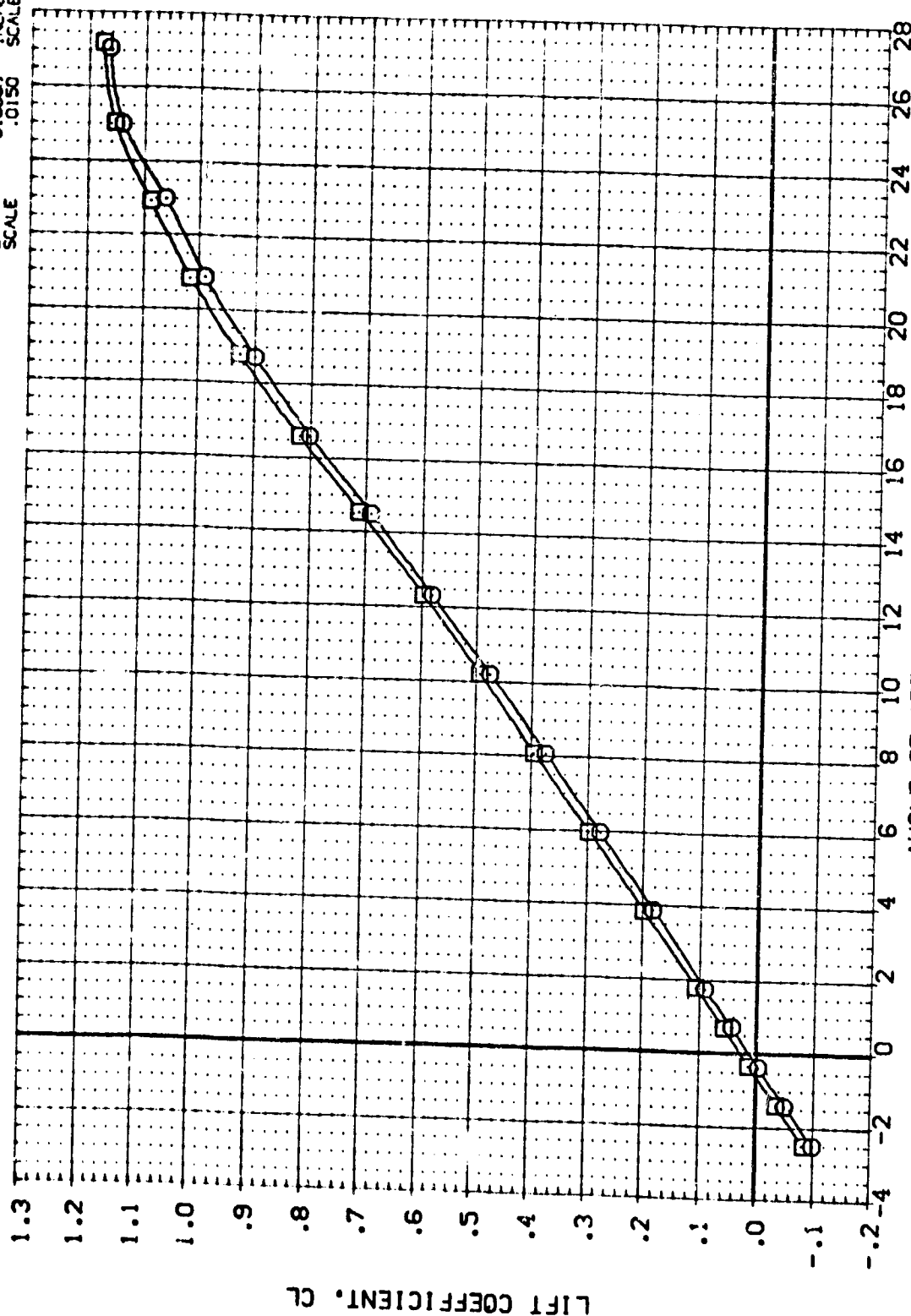
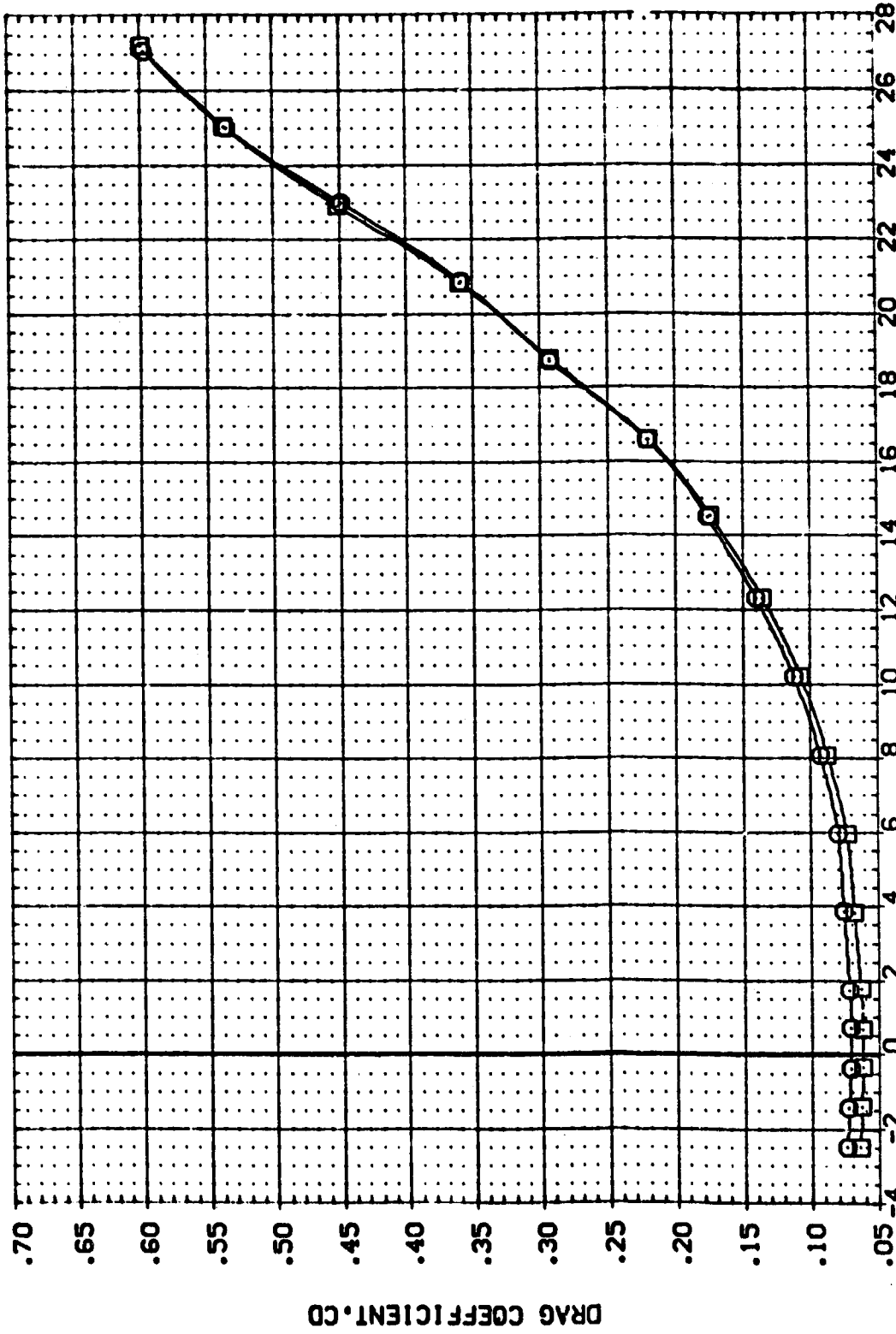


FIGURE 26 0898 ORBITER SPEED BRAKE DEFLECTION EFFECTS
(A)RN/L = 2.50



0.7

DATA SET SYMOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDGER	REFERENCE INFORMATION
(APPC27)	0A17.LTPT138.0882A.(B)0C507F4	.000	-14.250	24.920	.000	SREF 87.1560
(APPC26)	0A17.LTPT138.0882A.(B)0C507F4	.000	-14.250	.000	.000	LREF 19.9245
(APPC23)	DATA NOT AVAILABLE	.000	-14.250	54.920	.000	BREF 14.0502
(APPC41)	DATA NOT AVAILABLE	.000	-14.250	84.920	.000	XREF 13.1469
						YREF 6.0000
						ZREF 6.0000
						SCALE .0150
						SO. IN. INCHES



ANGLE OF ATTACK, ALPHA, DEGREES

FIGURE 26 089B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(AJRN/L = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPDRBK	RUDDER	REFERENCE INFORMATION
(APPC27)	DA17.LTPT138.08B2A.(8)0C507F4	.000	-14.250	24.920	.000	SREF 87.1560 50.1N.
(APPC26)	DA17.LTPT138.08B2A.(8)0C507F4	.000	-14.250	24.920	.000	LREF 19.3245 INCHES
(APPC23)	DATA NOT AVAILABLE	.000	-14.250	24.920	.000	BREF 14.0502 INCHES
(APPC41)	DATA NOT AVAILABLE	.000	-14.250	24.920	.000	ATRP 13.1468 INCHES
						YTRP 6.0000 INCHES
						ZTRP 6.0150 INCHES
						SCALE

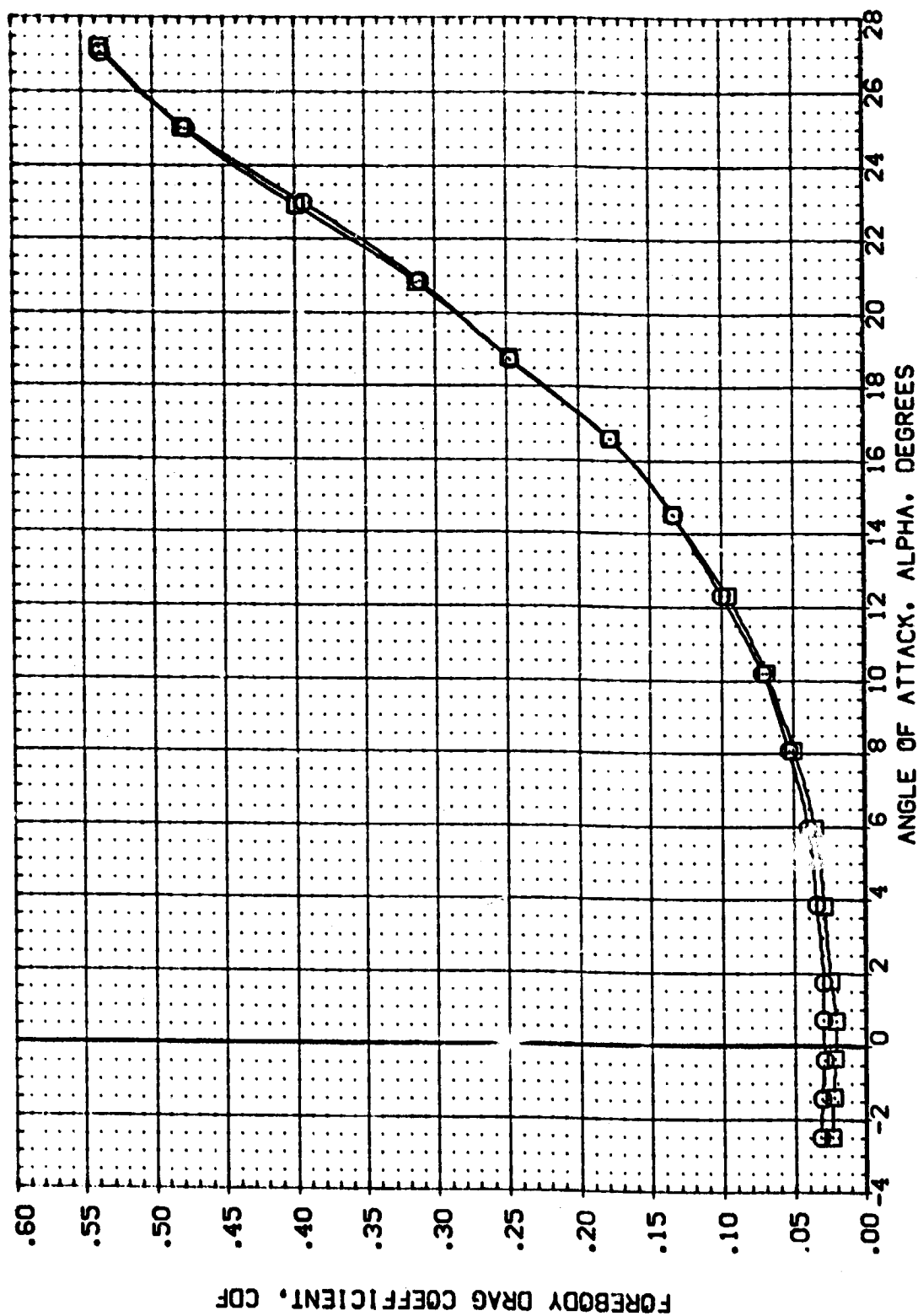


FIGURE 26 0898 ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 2.50

DATA SET SYMBOL: (APP027) (APP026) (APP023) (APP041)

CONFIGURATION DESCRIPTION: DAI7.LTPT138.082A.(B10CS07F4) M31(V87E18)(V5RS) DAI7.LTPT138.082A.(B10CS07F4) M31(V87E18)(V5RS) DATA NOT AVAILABLE DATA NOT AVAILABLE

ELEVTR: .000 .000 .000 .000

BOFLAP: -14.250 -14.250 -14.250 -14.250

SPDBRK: 24.920 24.920 54.920 84.920

RUDER: .000 .000 .000 .000

REFERENCE INFORMATION: SREF 67.1560 SO.IN. LREF 19.9245 INCHES BREF 14.0502 INCHES XPRP 13.1469 INCHES YPRP .0000 INCHES ZPRP 6.0000 INCHES SCALE .0150

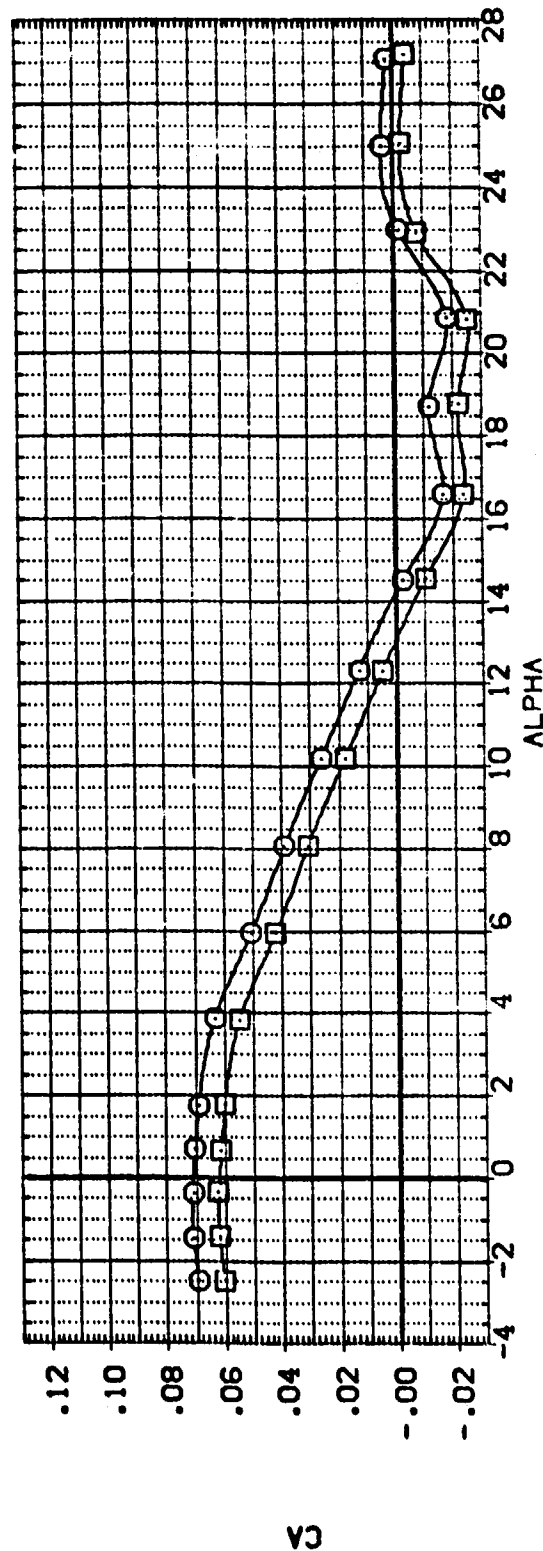
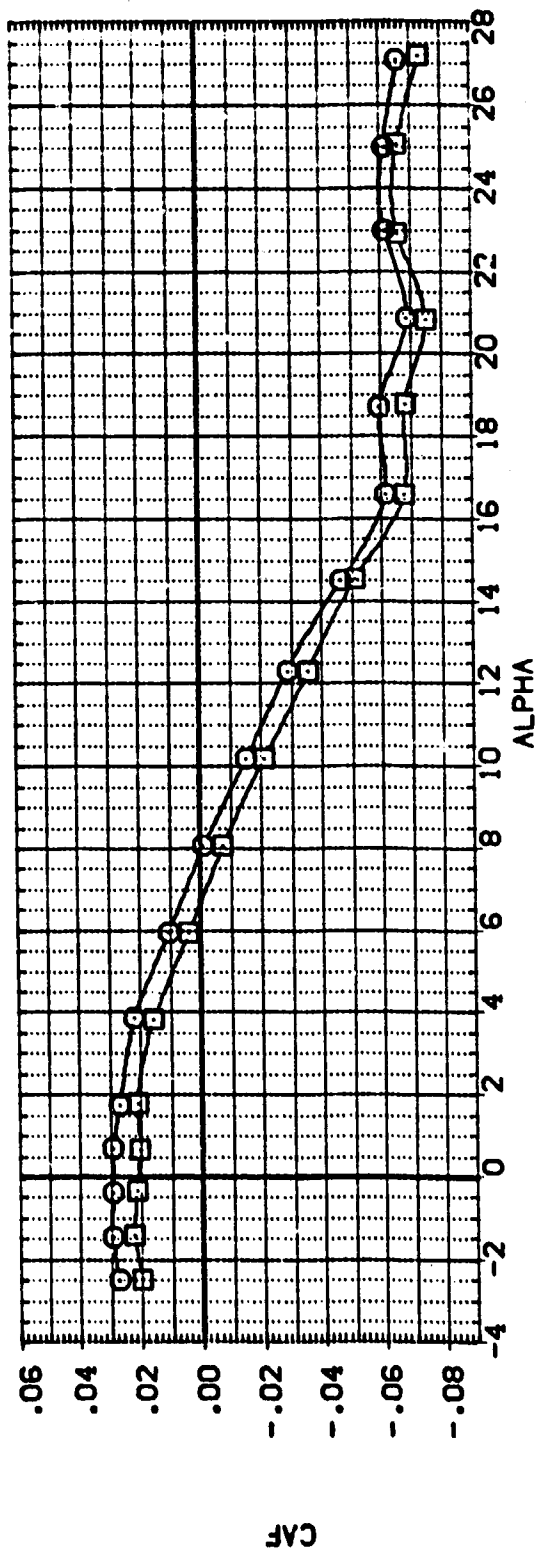


FIGURE 26 0898 ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BDFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APPO27)	CA17,LTPT138,CR82A,(B10C507F4	.000	-14.250	24.920	.000	SREF 87.1560 50. IN.
(APPO28)	CA17,LTPT138,CR82A,(B10C507F4	.000	-14.250	24.920	.000	LREF 19.9245 INCHES
(APPO29)	DATA NOT AVAILABLE	.000	-14.250	54.920	.000	BREF 14.0502 INCHES
(APPO41)	DATA NOT AVAILABLE	.000	-14.250	64.920	.000	XPRP 13.1469 INCHES
						YPRP 6.0000 INCHES
						ZPRP .0150 INCHES
						SCALE

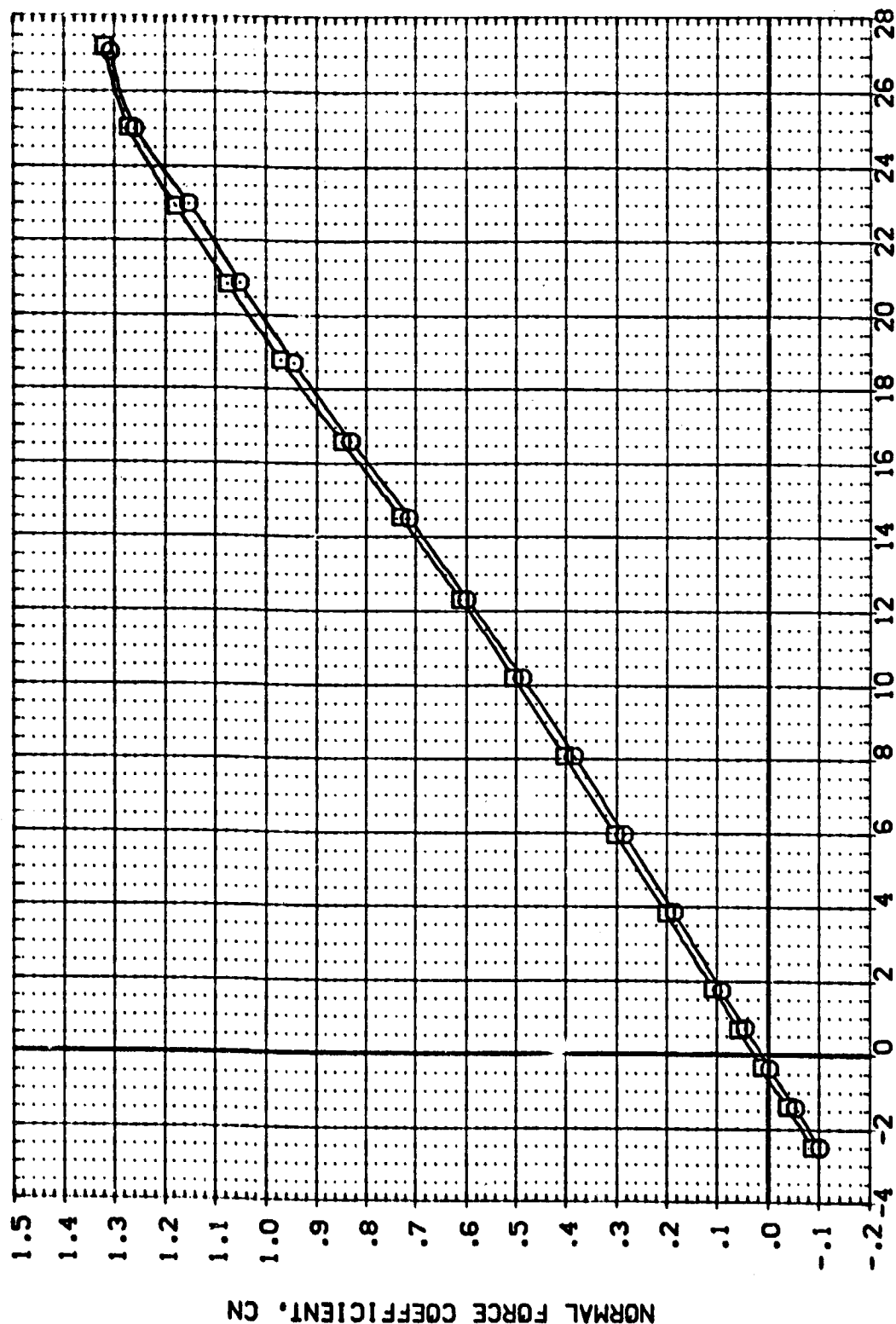


FIGURE 26 089B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 2.50

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVTR		BDFLAP		SPDRBK		RUDDER		REFERENCE INFORMATION	
AB027	CA17.LTPT138.0882A.(B10C507F4	M311(V87E1811(VSR5)	.000	-14.250	24.920	.000	SREF	87.1560	50.1N				
AB026	CA17.LTPT138.0882A.(B10C507F4	M311(V87E1811(VSR5)	.000	-14.250	54.920	.000	LREF	19.9245	INCHES				
AB023	DATA NOT AVAILABLE		.000	-14.250	64.920	.000	BREF	14.0502	INCHES				
AB024	DATA NOT AVAILABLE		.000	-14.250		.000	XREF	13.1469	INCHES				
							YREF	6.0000	INCHES				
							ZREF	6.0000	INCHES				
							SCALE	.0150	SCALE				

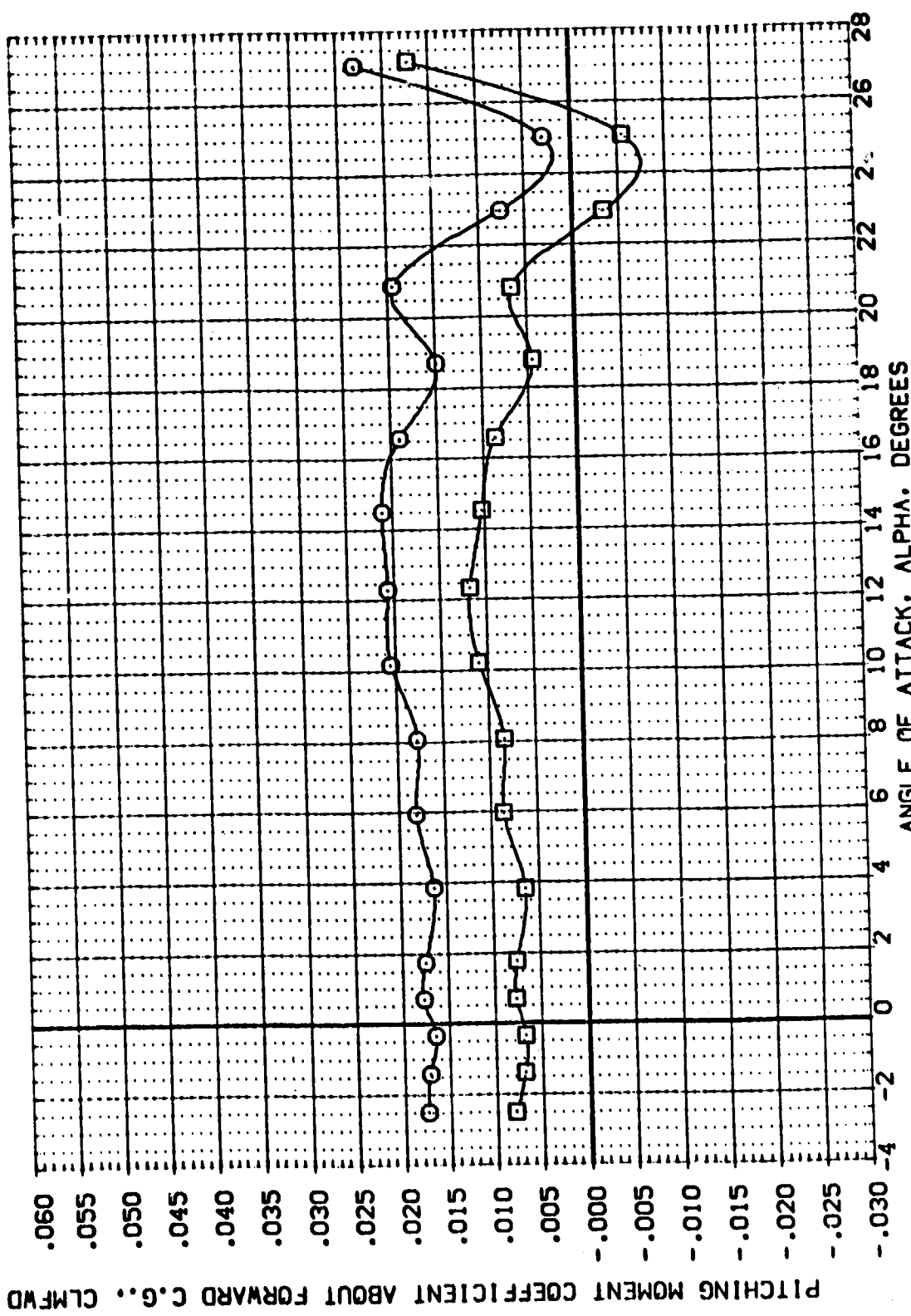


FIGURE 26 0898 ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 2.50

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVTR		BOT LAP		SPD BRK		RUDDER		REFERENCE INFORMATION	
ABPC27	1	DA17.LTPT138.DR82A.(D10CS07F4	M3)(V87E18)(VSR5)	.000	-14.250	24.920	.000	SRF	87.1560	SC IN.			
ABPC26	1	DA17.LTPT138.DR82A.(B10CS07F4	M3)(V87E18)(VSR5)	.000	-14.250	54.920	.000	REF	19.8245	INCHES			
ABPC23	1	DATA NOT AVAILABLE		.000	-14.250	84.920	.000	SRF	14.0502	INCHES			
ABPC41	1	DATA NOT AVAILABLE		.000	-14.250		.000	SRF	13.1469	INCHES			
								SRF	6.0000	INCHES			
								SRF	6.0150	SCALE			

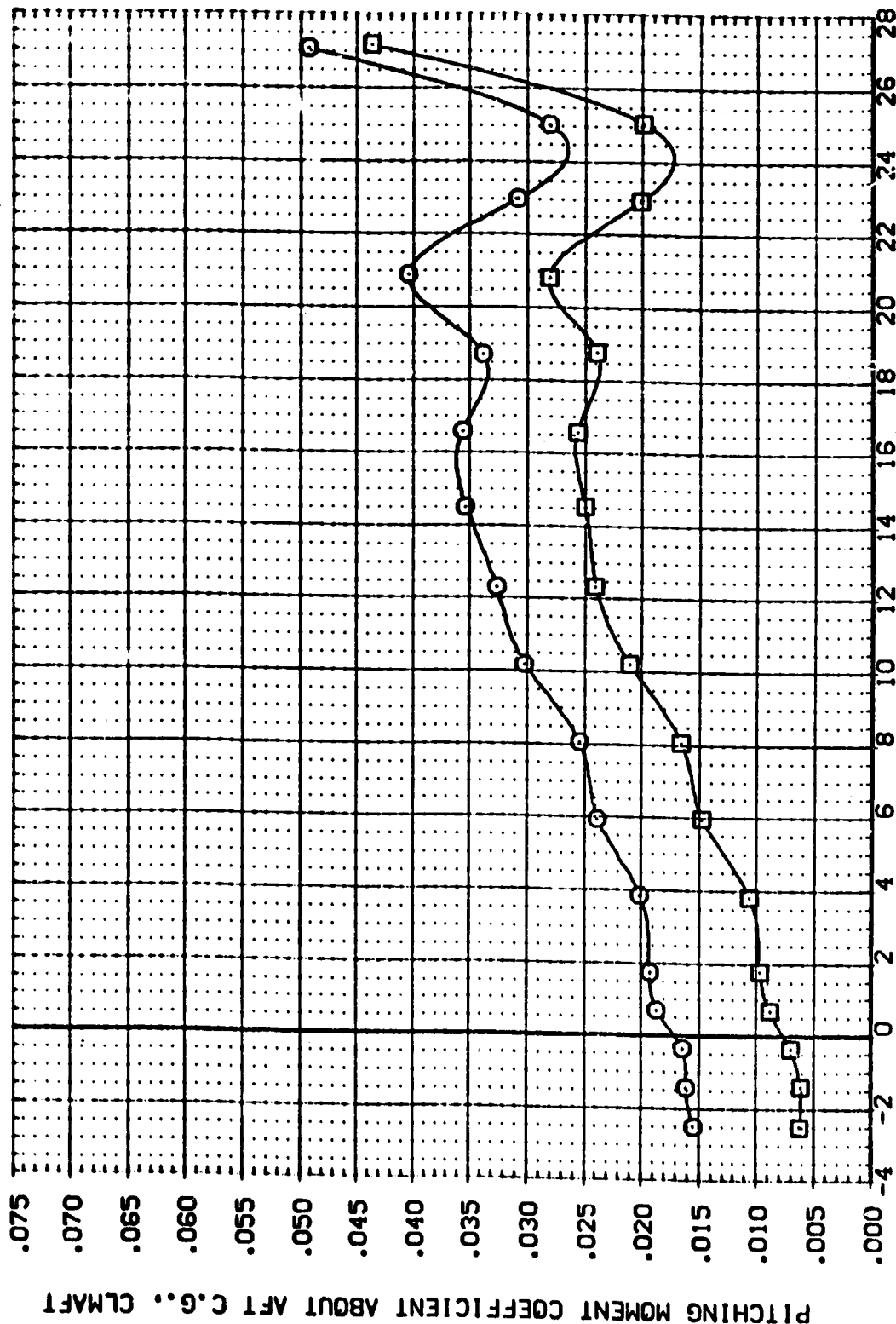


FIGURE 26 0898 ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION	
(APPC27)	CA17.LTPT138.ORB2A.(B)OC507F4	.000	-14.250	24.920	.000	SREF	87.1560
(APPC26)	CA17.LTPT138.ORB2A.(B)OC507F4	.000	-14.250	24.920	.000	LREF	19.9245
(APPC23)	DATA NOT AVAILABLE	.000	-14.250	54.920	.000	BREF	14.0502
(APPC41)	DATA NOT AVAILABLE	.000	-14.250	64.920	.000	XPRP	13.1469
						YPRP	.0000
						ZPRP	6.0000
						SCALE	.0150
						SCALE	INCHES
						SCALE	INCHES

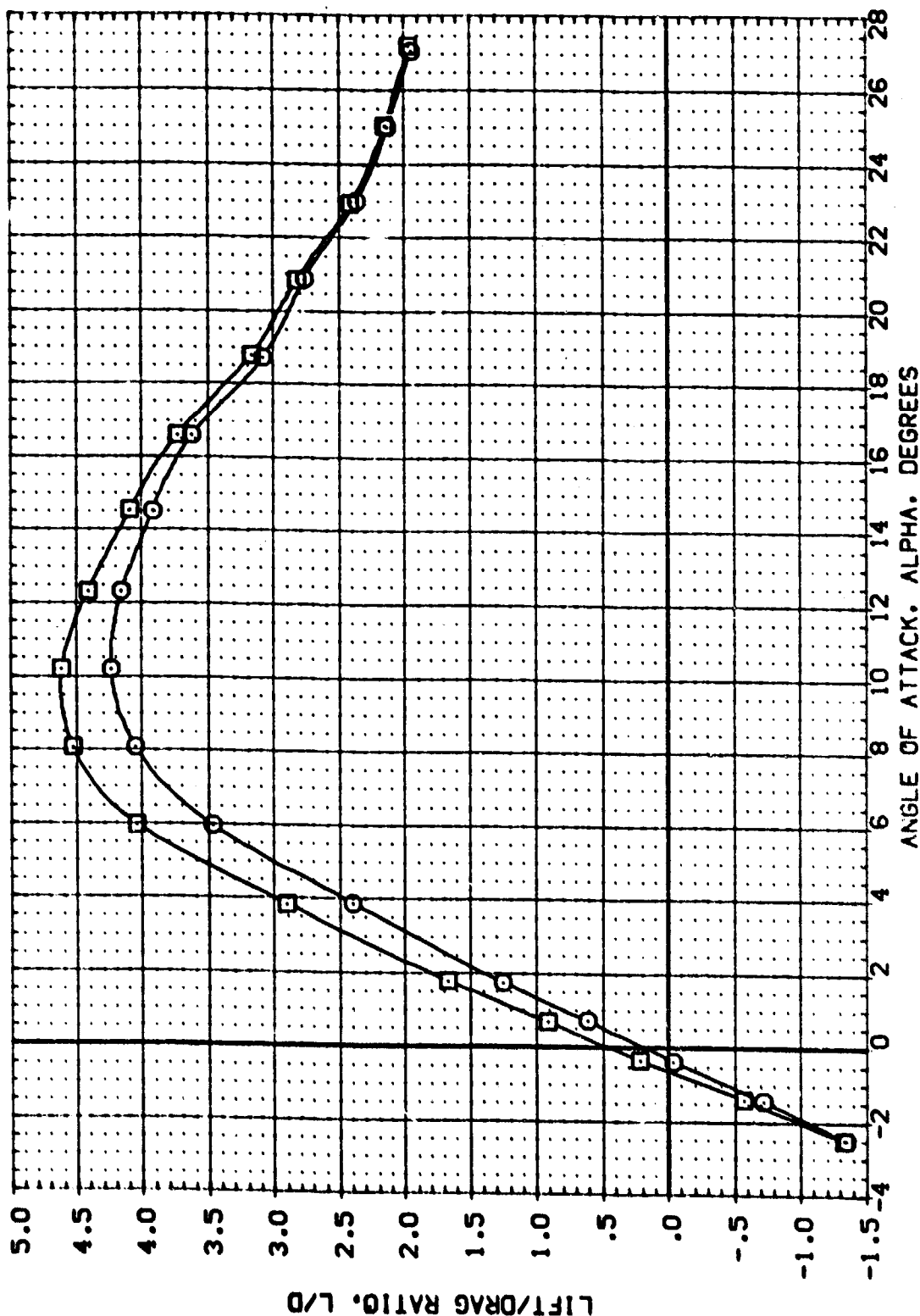


FIGURE 26 0898 ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 2.50

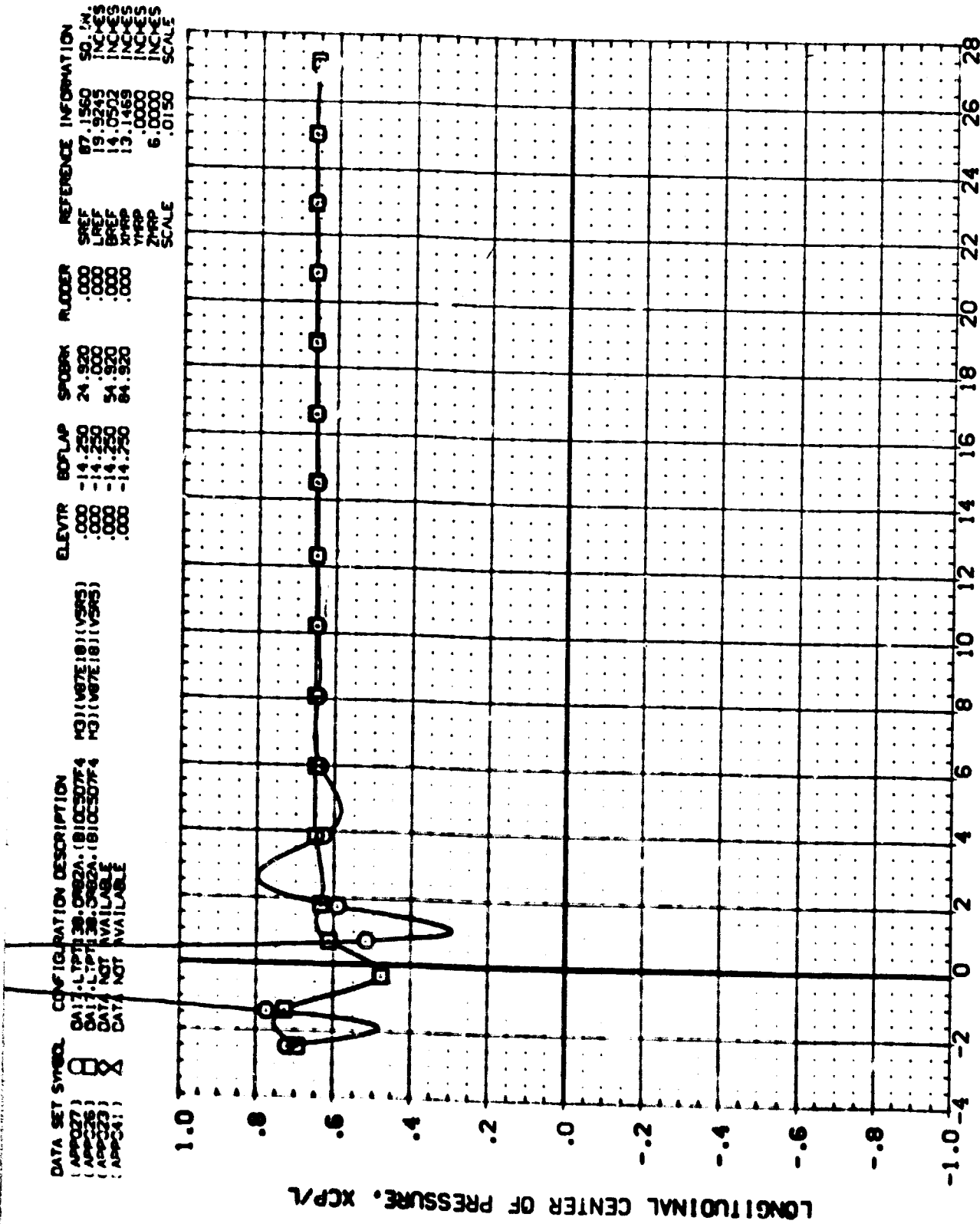


FIGURE 26 0898 ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDGER	REFERENCE INFORMATION
(APPC27)	DA17.LTPT138.DRB2A.(810C507F4	.000	-14.250	24.920	.000	SREF 87.1550 50. IN
(APPC26)	DA17.LTPT138.DRB2A.(810C507F4	.000	-14.250	1000	.000	LREF 19.9245 INCHES
(APPC23)	DATA NOT AVAILABLE	.000	-14.250	54.920	.000	BREF 14.0502 INCHES
(APPC41)	DATA NOT AVAILABLE	.000	-14.250	64.920	.000	XREF 13.1469 INCHES
						YREF 6.0000 INCHES
						ZREF .0150 SCALE

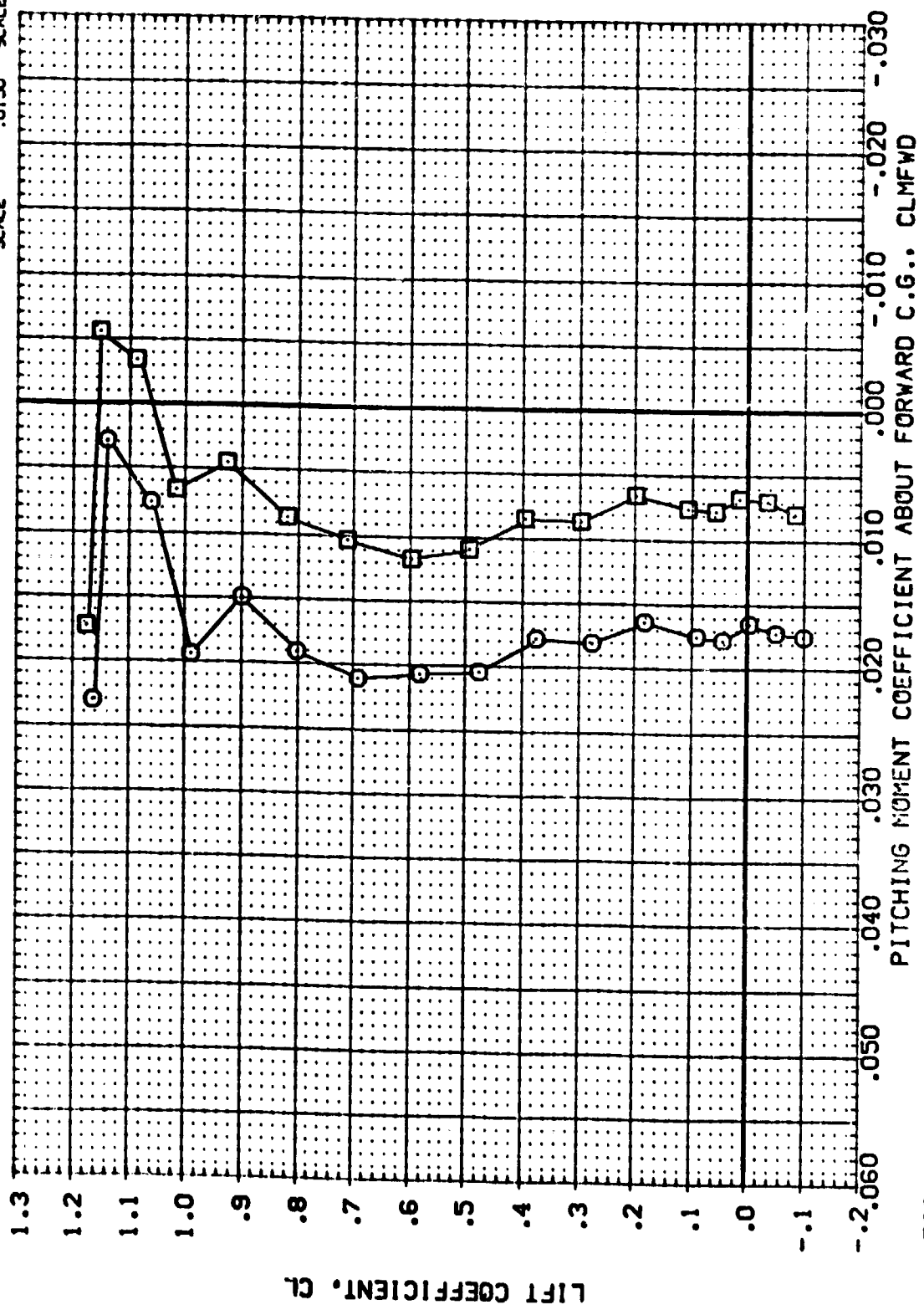


FIGURE 26 089B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BDFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APP027)	DA17.LTPT138.DR82A.(B)OC507F4	.000	-14.250	24.920	.000	SREF 87.1560 50. IN.
(APP026)	DA17.LTPT138.DR82A.(B)OC507F4	.000	-14.250	.000	.000	LREF 19.9245 INCHES
(APP023)	DATA NOT AVAILABLE	.000	-14.250	54.920	.000	BREF 14.0502 INCHES
(APP041)	DATA NOT AVAILABLE	.000	-14.250	84.920	.000	XMRP 13.1469 INCHES
						YMRP .0000 INCHES
						ZMRP .0000 INCHES
						SCALE .0150

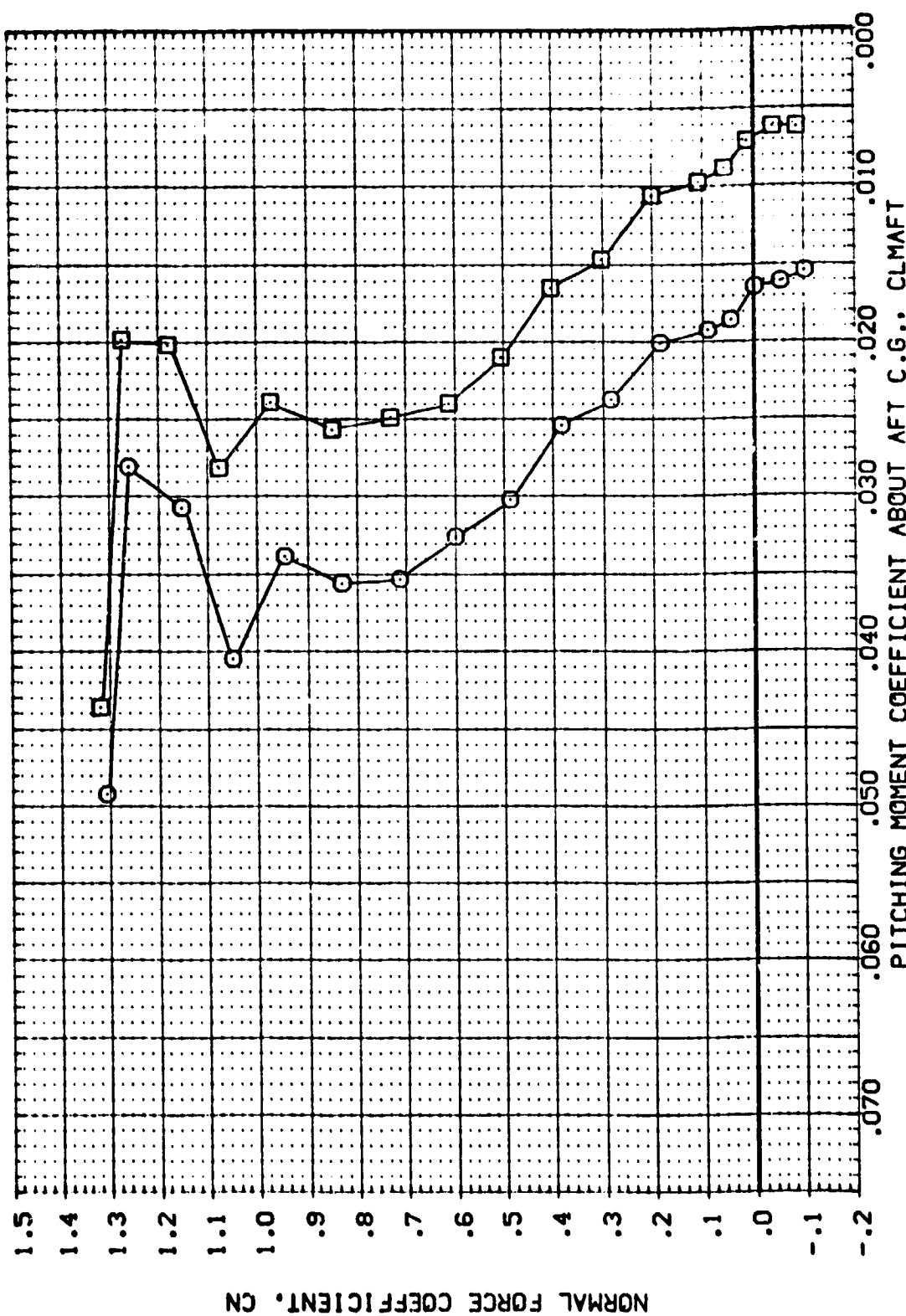


FIGURE 26 089B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	M31(V87E18)(V5R5)	ELEVTR	BDFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APPC27)	DA17.LTPT138.DR82A.181DC507F4	M31(V87E18)(V5R5)	.000	-14.250	24.920	.000	SREF 87.1560 50.1 IN.
(APPC26)	DA17.LTPT138.DR82A.181DC507F4	M31(V87E18)(V5R5)	.000	-14.250	24.920	.000	LREF 19.9245 INCHES
(APPC23)	DATA NOT AVAILABLE		.000	-14.250	54.920	.000	BREF 14.0502 INCHES
(APPC41)	DATA NOT AVAILABLE		.000	-14.250	84.920	.000	XMRP 13.1469 INCHES
							YMRP 6.0000 INCHES
							ZMRP 6.0000 INCHES
							SCALE .0150

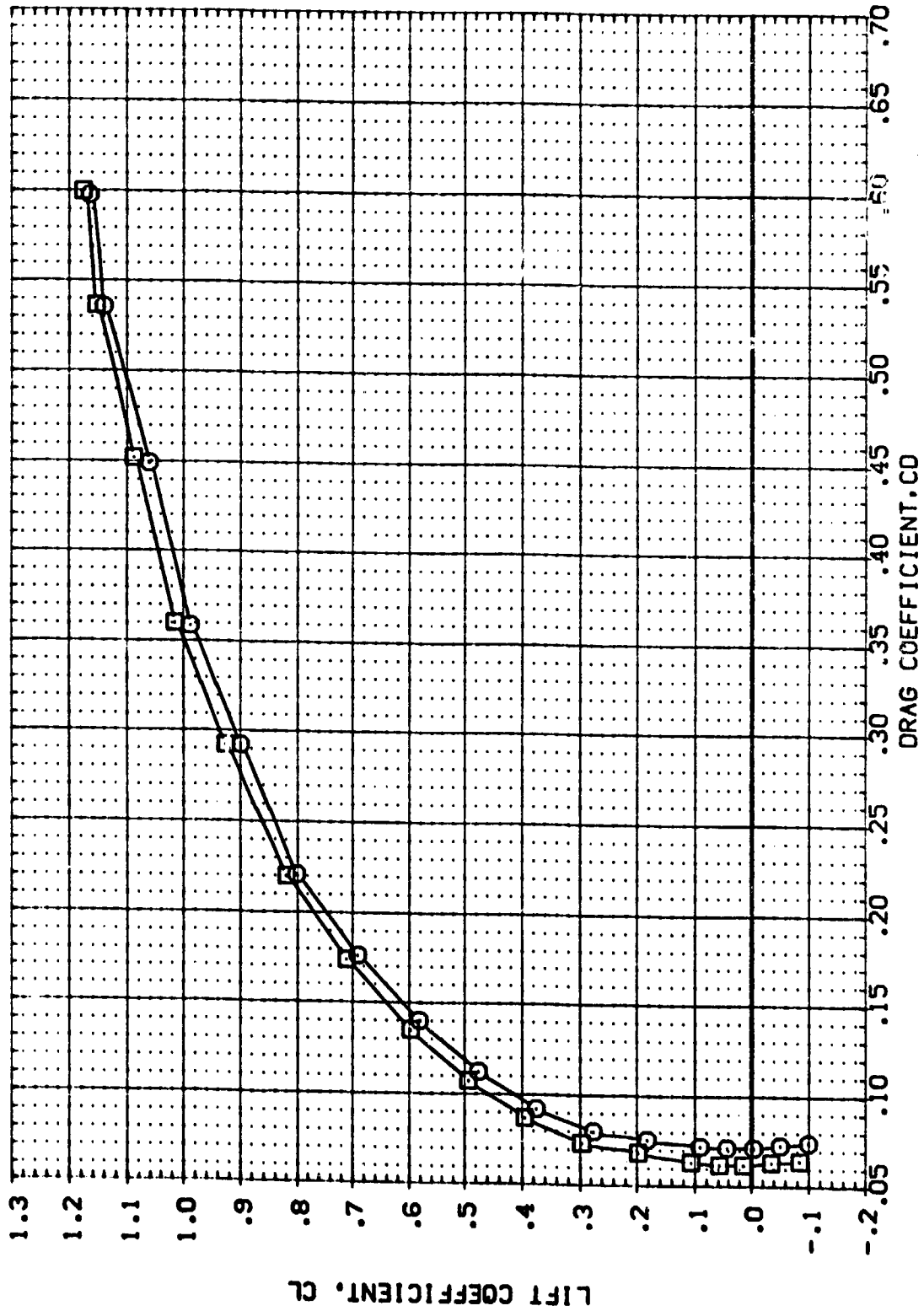


FIGURE 26 0898 ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 2.50

DATA SET SYMBOL: CA17.LTPT138.0892A. (B10C507F4) M31(V87E18)(V595)
 (RPP027) CA17.LTPT138.0892A. (B10C507F4) M31(V87E18)(V595)
 (RPP026) DATA NOT AVAILABLE
 (RPP023) DATA NOT AVAILABLE
 (RPP041)

CONFIGURATION DESCRIPTION: CA17.LTPT138.0892A. (B10C507F4) M31(V87E18)(V595)
 DATA NOT AVAILABLE
 DATA NOT AVAILABLE

ELEVTR: .000
 .000
 .000

BDFLAP: -14.250
 -14.250
 -14.250

SPDBRK: 24.920
 24.920
 54.920

RUDDER: .000
 .000
 .000

REFERENCE INFORMATION:
 SREF: 87.1560 SQ. IN.
 LREF: 19.9245 INCHES
 BREF: 14.0502 INCHES
 XTRP: 13.1469 INCHES
 YTRP: .0000 INCHES
 ZTRP: 6.0000 INCHES
 SCALE: .0150

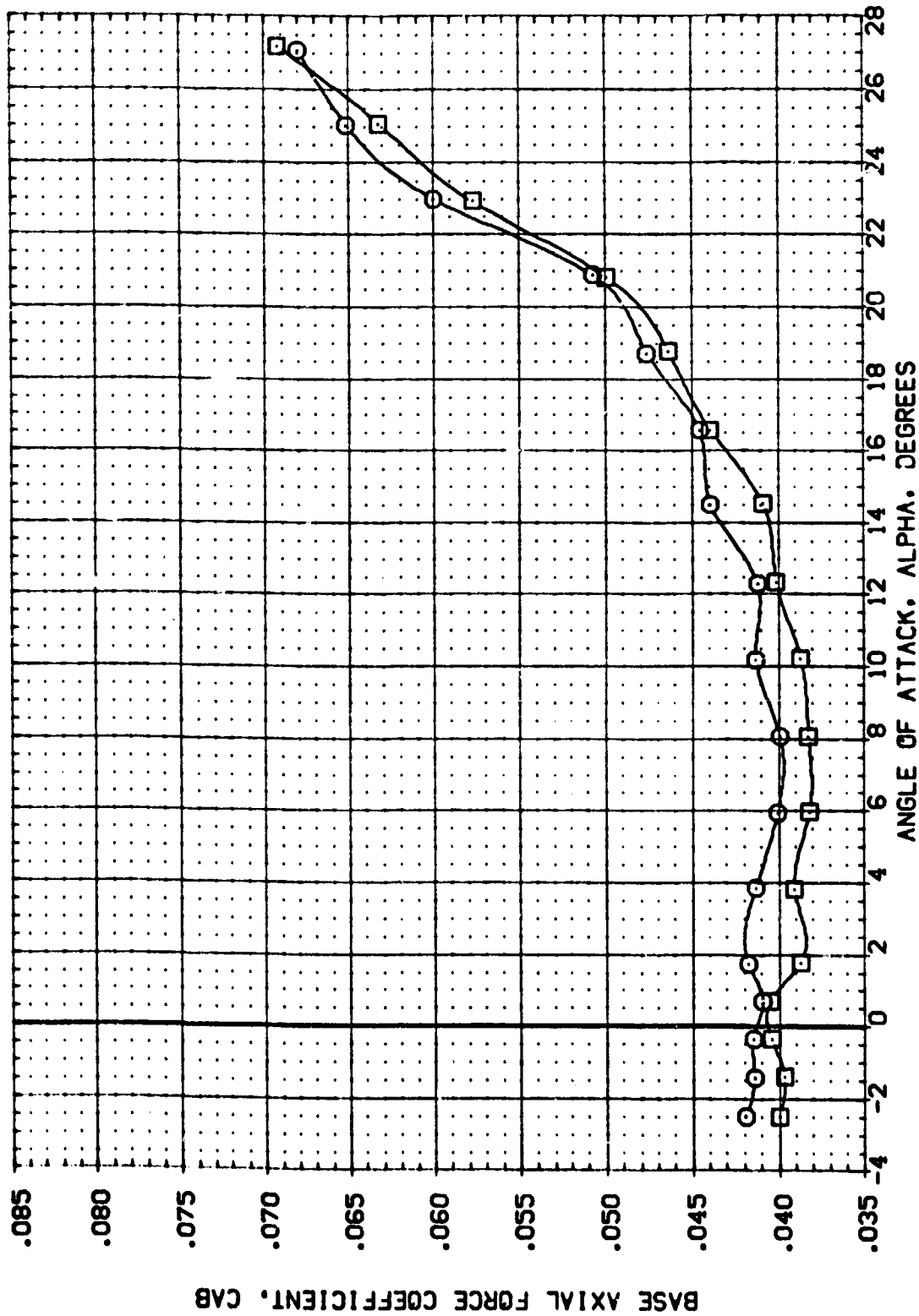


FIGURE 26 089B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 2.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APPC27)	CA17.LTPT138.CRB2A.(B10CS07F4	.000	-14.250	24.920	.000	SREF 87.1560 SO.IN.
(APPC26)	CA17.LTPT138.CRB2A.(B10CS07F4	.000	-14.250	.000	.000	LREF 19.9245 INCHES
(APPC23)	CA17.LTPT138.CRB2A.(B10CS07F4	.000	-14.250	54.920	.000	BREF 14.0502 INCHES
(APPC21)	CA17.LTPT138.CRB2A.(B10CS07F4	.000	-14.250	84.920	.000	MREF 13.1489 INCHES
						YMRP 6.0000 INCHES
						ZMRP .0150 INCHES
						SCALE

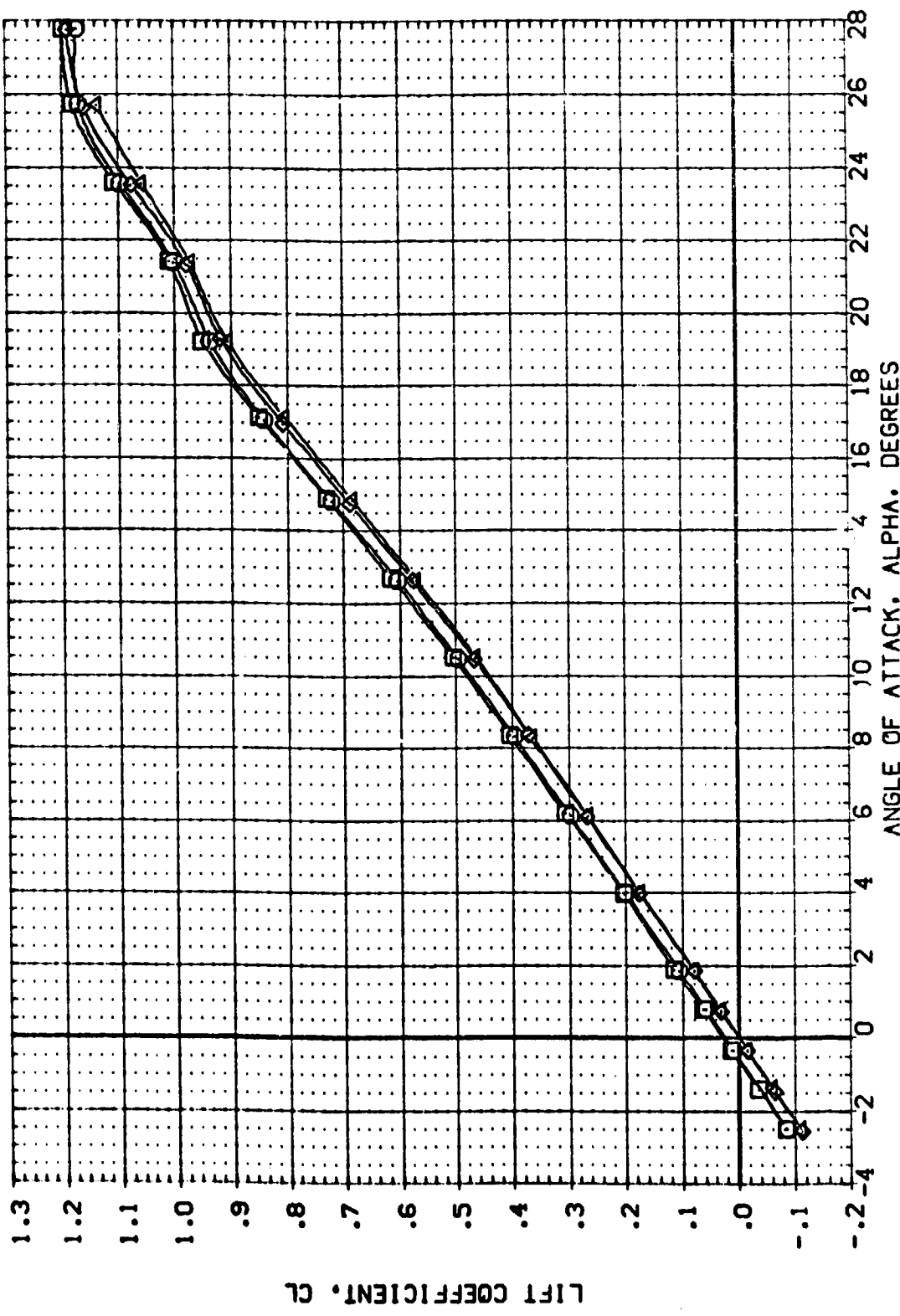


FIGURE 26 08C8 ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APP027)	CA17.LTPT138.0882A.(810C507F4	.000	-14.250	24.920	.000	SREF 87.1560 50. IN.
(APP026)	CA17.LTPT138.0882A.(810C507F4	.000	-14.250	24.920	.000	LREF 13.9245 INCHES
(APP023)	CA17.LTPT138.0882A.(810C507F4	.000	-14.250	54.920	.000	BREF 14.0502 INCHES
(APP041)	CA17.LTPT138.0882A.(810C507F4	.000	-14.250	84.920	.000	XMRP 13.1469 INCHES
						ZMRP 6.0000 INCHES
						SCALE .0150 SCALE

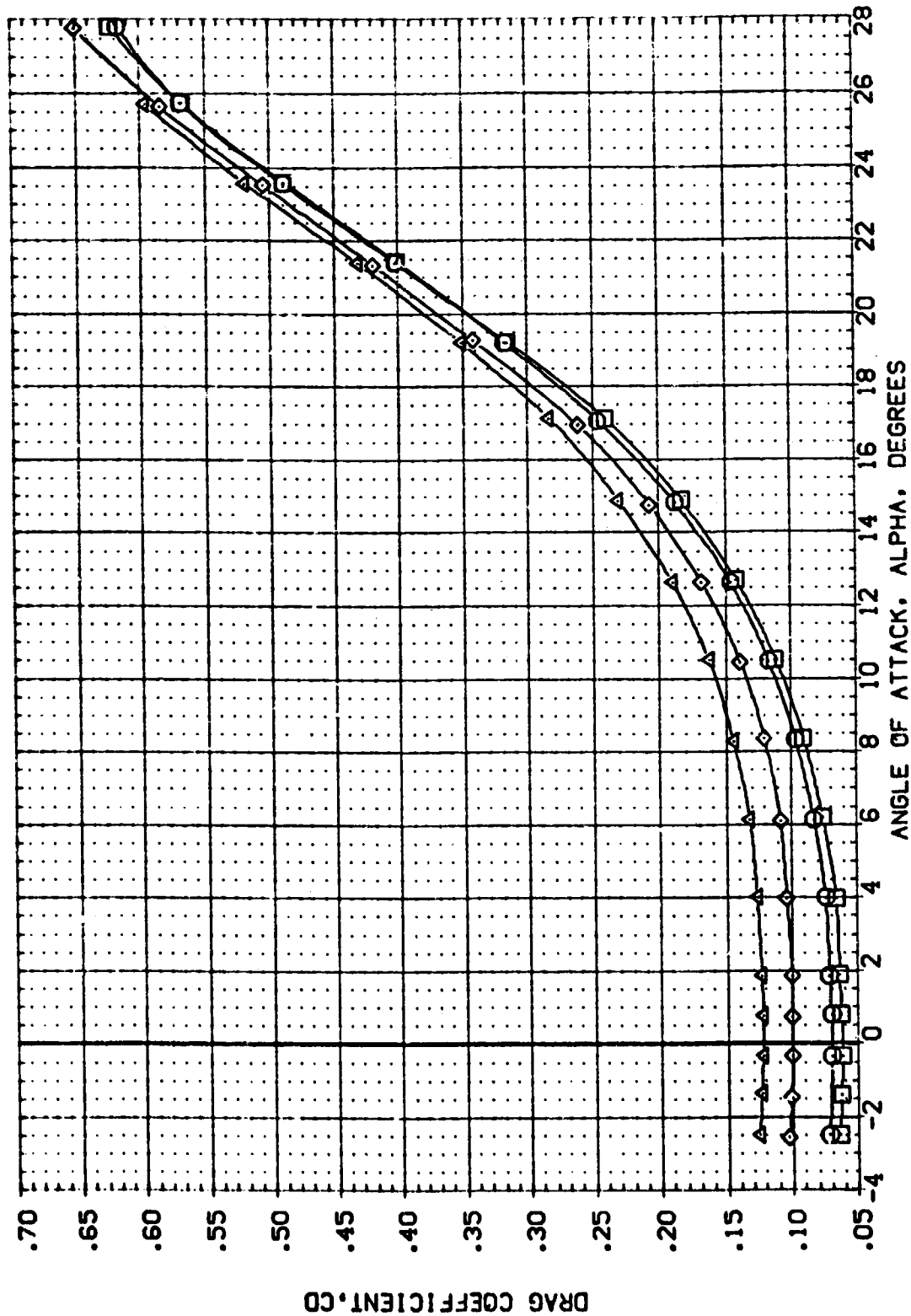


FIGURE 26 089B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(AJRN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SUBPRK	RUDDER	REFERENCE INFORMATION
(APPC27)	CA17.LTPT138.0882A.(8)OC507F4	.000	-14.250	24.920	.000	SREF 87.1560 50. IN
(APPC26)	CA17.LTPT138.0882A.(8)OC507F4	.000	-14.250	.000	.000	LREF 19.9245 INCHES
(APPC23)	CA17.LTPT138.0882A.(8)OC507F4	.000	-14.250	54.920	.000	BREF 14.0502 INCHES
(APPC41)	CA17.LTPT138.0882A.(8)OC507F4	.000	-14.250	84.920	.000	XREF 13.1469 INCHES
						YREF .0000 INCHES
						ZREF 6.0000 INCHES
						SCALE .0150 INCHES

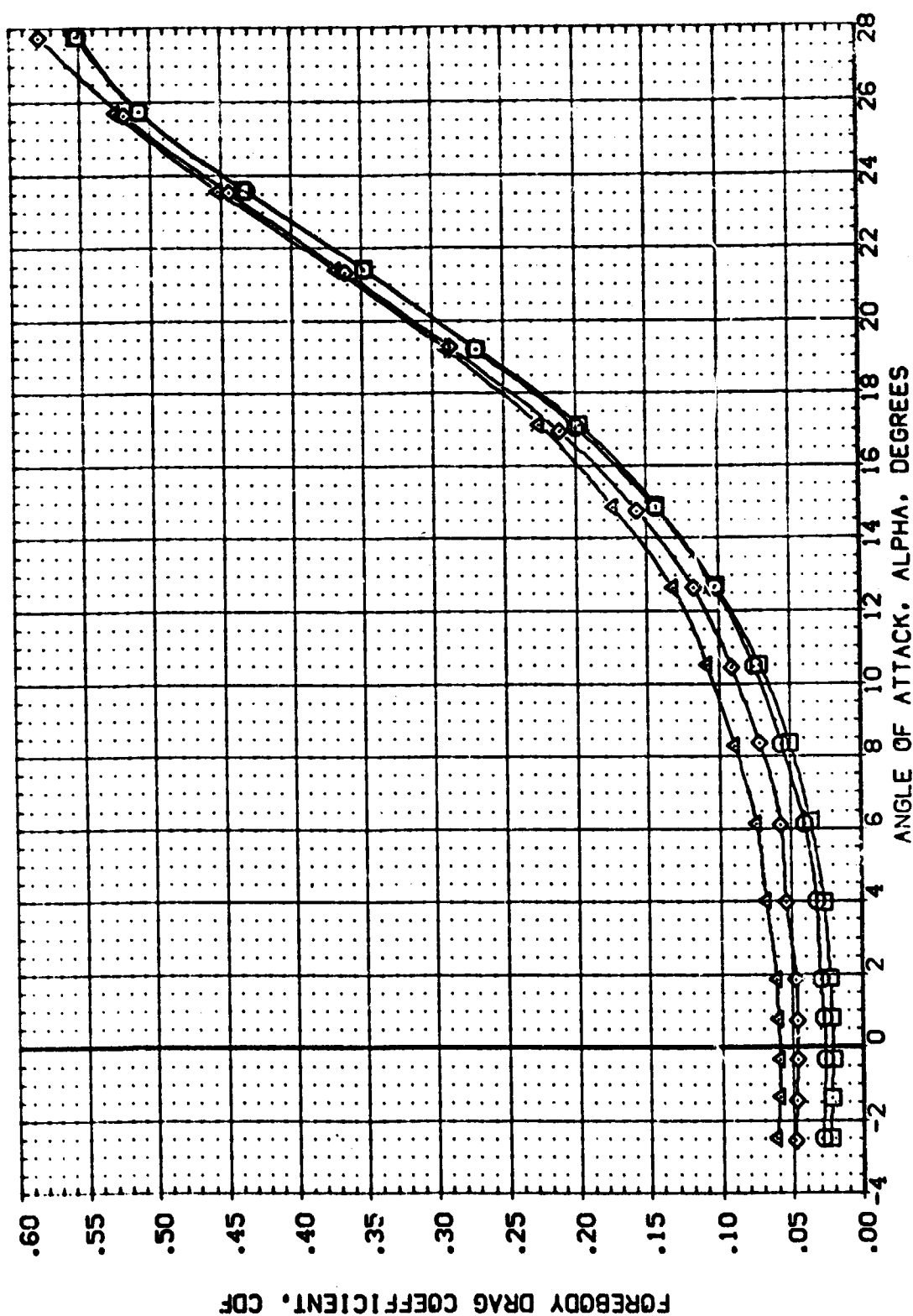


FIGURE 26 089B ORBITER SPEED BRAKE DEFLECTION EFFECTS

C/JRN/L = 4.70



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDER	REFERENCE INFORMATION
(APC27)	CA17.LTPT 38.CRB2A.(B)DC507F4	.000	-14.250	24.920	.000	SREF 87.1560 SO.IN.
(APC26)	CA17.LTPT 38.CRB2A.(B)DC507F4	.000	-14.250	.000	.000	LREF 19.9245 INCHES
(APC23)	CA17.LTPT 38.CRB2A.(B)DC507F4	.000	-14.250	54.920	.000	BREF 14.0502 INCHES
(APC41)	CA17.LTPT 38.CRB2A.(B)DC507F4	.000	-14.250	84.920	.000	XMRP 13.1469 INCHES
						YMRP .0000 INCHES
						ZMRP 6.0000 INCHES
						SCALE .0150

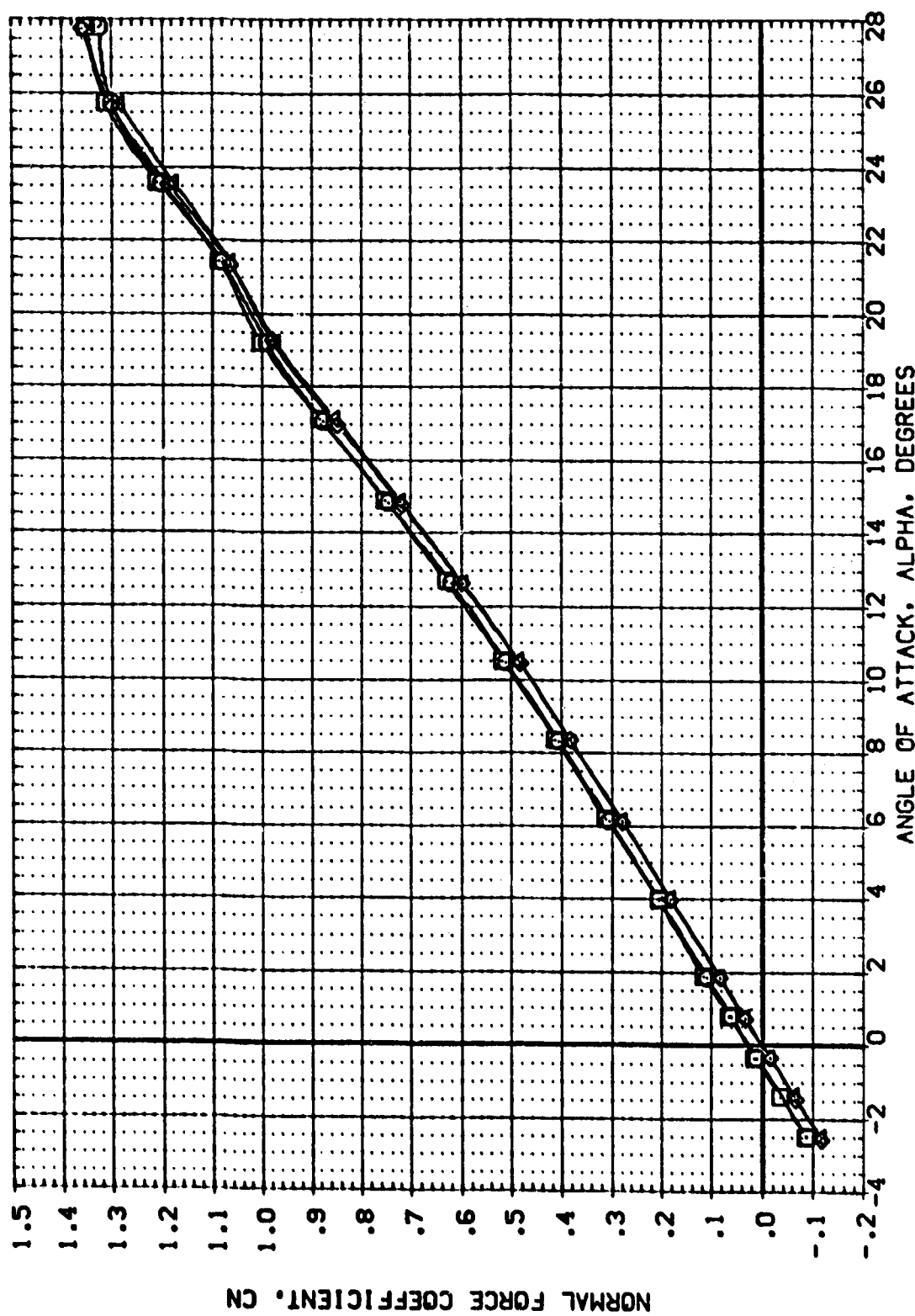


FIGURE 26 0898 ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BDFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APP027)	□	CA17.LTPT138.CRB2A.(B10C507F4	.000	-14.250	24.920	.000	SREF 87.1560 50. IN
(APP026)	△	CA17.LTPT138.CRB2A.(B10C507F4	.000	-14.250	.000	.000	LREF 19.9245 INCHES
(APP023)	◇	CA17.LTPT138.CRB2A.(B10C507F4	.000	-14.250	54.920	.000	BREF 14.0502 INCHES
(APP041)	○	CA17.LTPT138.CRB2A.(B10C507F4	.000	-14.250	64.920	.000	YARP 13.1469 INCHES
							ZARP 6.0000 INCHES
							SCALE .0150

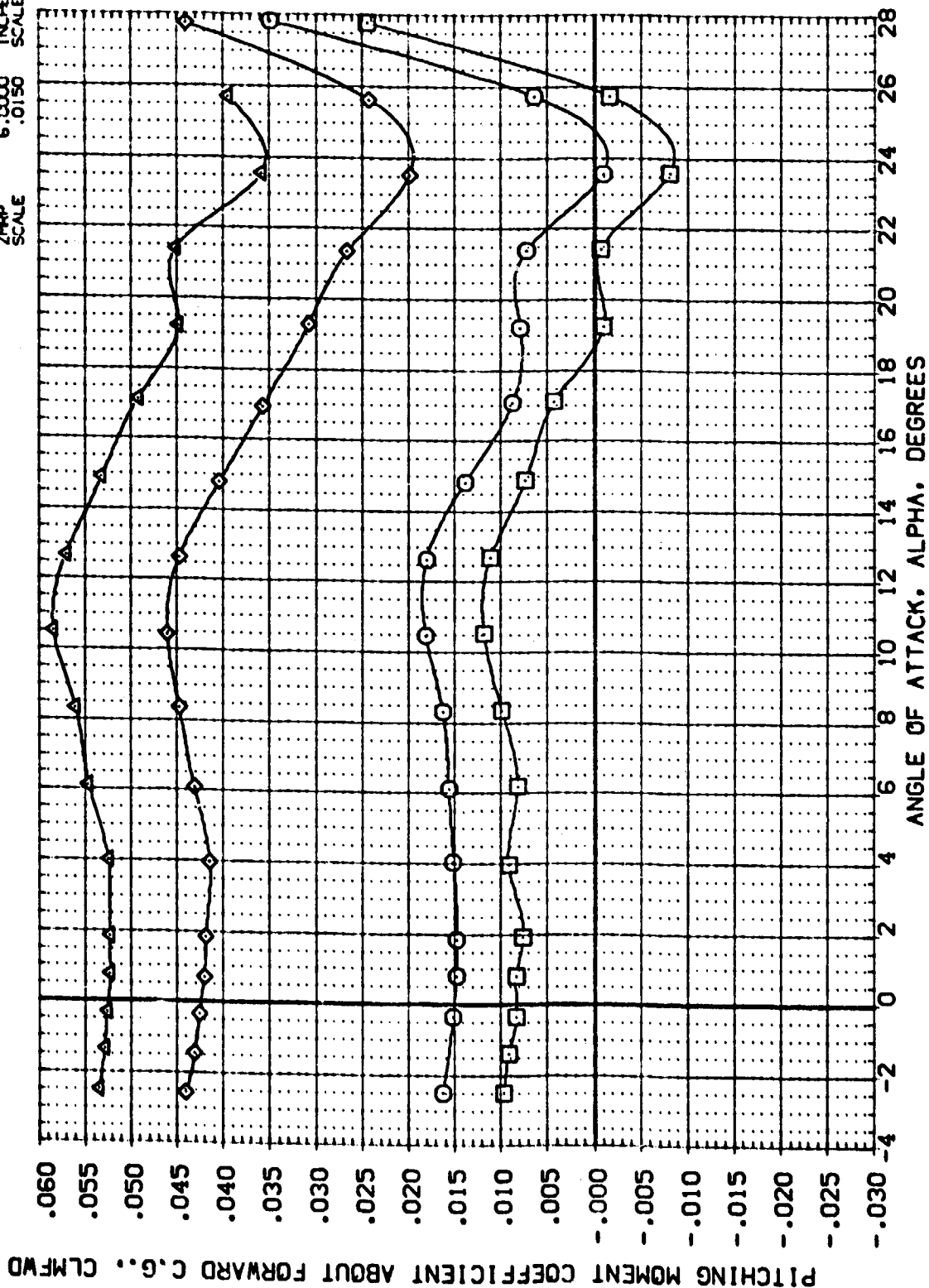


FIGURE 26 089B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 4.70



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDER	REFERENCE INFORMATION
(APPC27)	CA17.LTPT138.CRB2A.(B10C507F4	.000	-14.250	24.920	.000	SREF 87.1560 SQ. IN.
(APPC26)	CA17.LTPT138.CRB2A.(B10C507F4	.000	-14.250	24.920	.000	LREF 19.9245 INCHES
(APPC23)	CA17.LTPT138.CRB2A.(B10C507F4	.000	-14.250	54.920	.000	BREF 14.0502 INCHES
(APPC41)	CA17.LTPT138.CRB2A.(B10C507F4	.000	-14.250	84.920	.000	XREF 13.1469 INCHES
						YREF .0000 INCHES
						ZREF .0000 INCHES
						SCALE .0150 INCHES

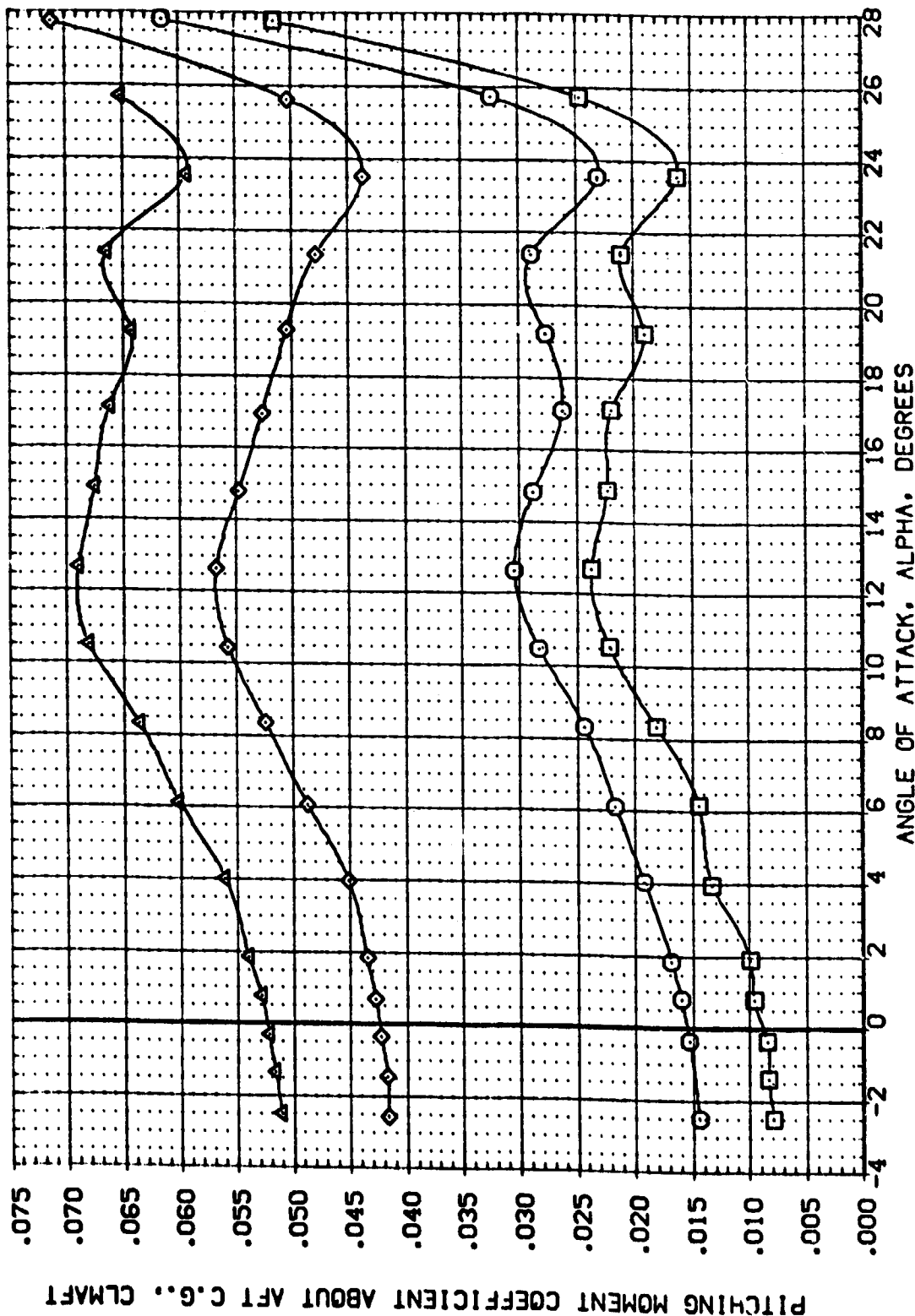


FIGURE 26 0898 ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A) RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BDFLAP	SPOBRK	RUDER	REFERENCE INFORMATION	SO. IN.
(APC27)	DA17.L1PT138.DRB2A.(810C507F4	.000	-14.250	24.920	.000	SREF	87.1560
(APC26)	DA17.L1PT138.DRB2A.(810C507F4	.000	-14.250	.000	.000	LREF	19.9245
(APC23)	DA17.L1PT138.DRB2A.(810C507F4	.000	-14.250	54.920	.000	BREF	14.0502
(APC41)	DA17.L1PT138.DRB2A.(810C507F4	.000	-14.250	84.920	.000	XMRP	13.1469
						YMRP	.0000
						ZMRP	.0000
						SCALE	.0150

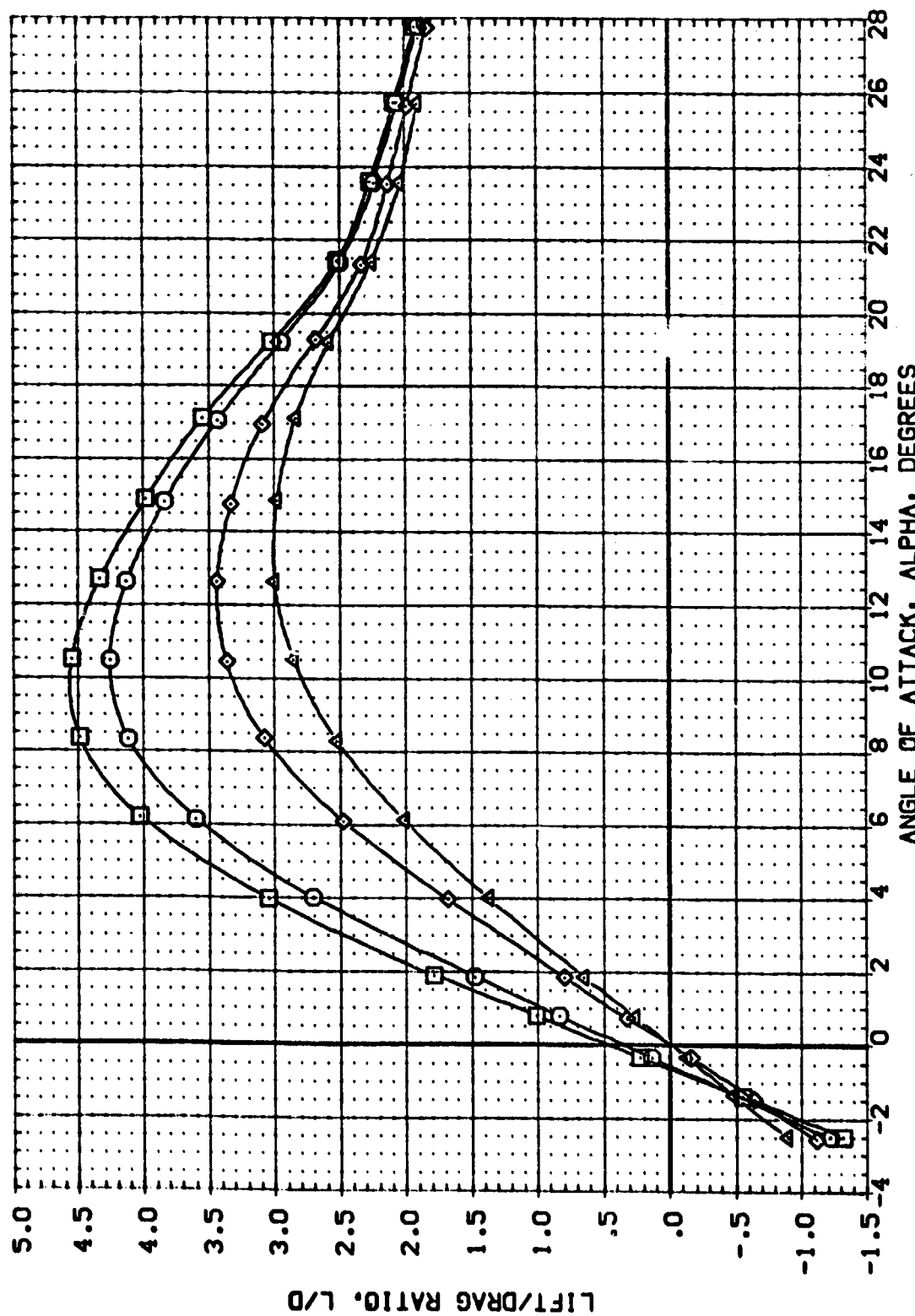


FIGURE 26 089B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 4.70

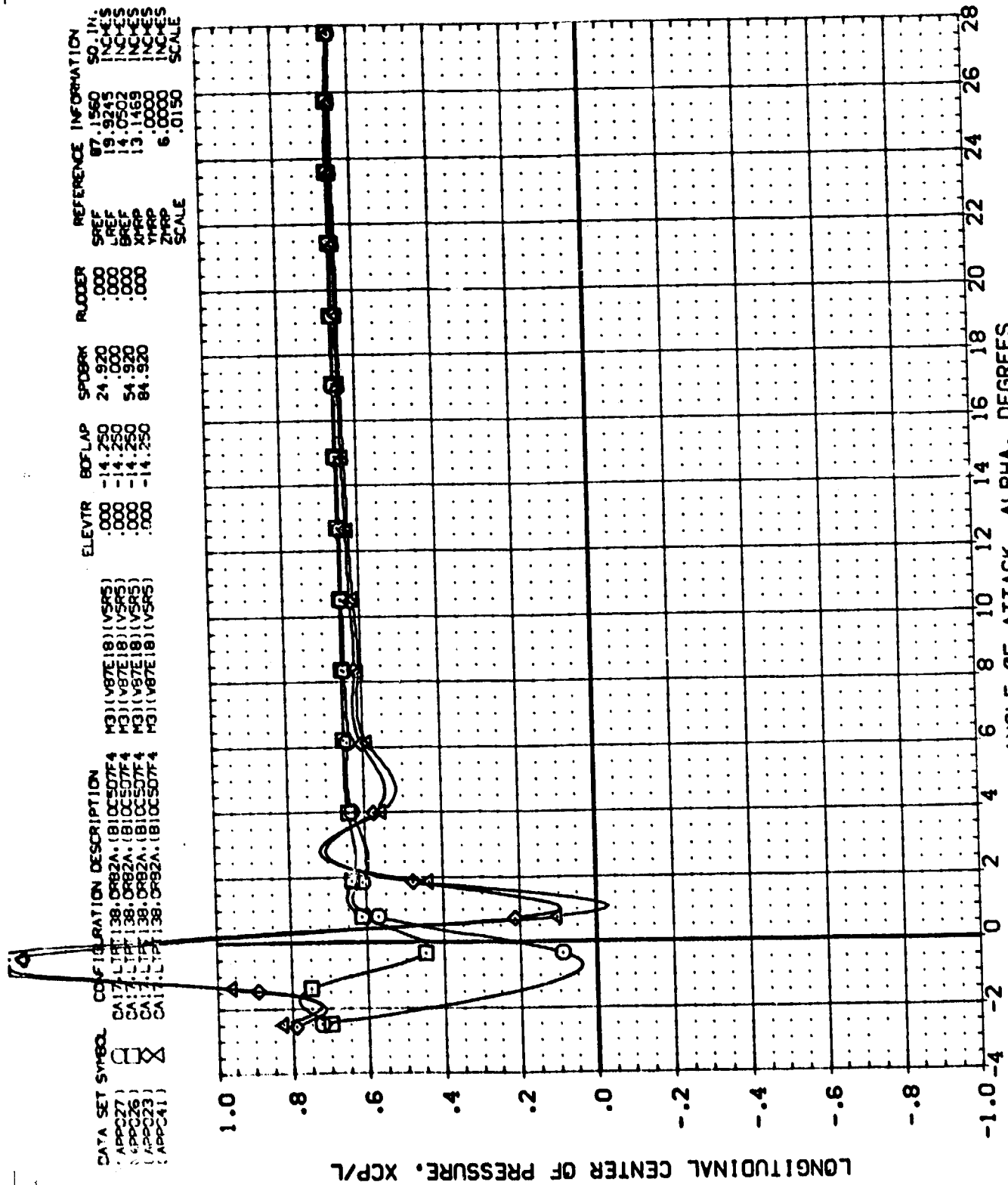


FIGURE 26 0898 ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDER	REFERENCE INFORMATION
(APP027)	DA17.LTPT138.DRB2A.(B10C507F4	.000	-14.250	24.920	.000	SREF 87.1560 SQ.IN.
(APP026)	DA17.LTPT138.DRB2A.(B10C507F4	.000	-14.250	.000	.000	LREF 19.9245 INCHES
(APP023)	DA17.LTPT138.DRB2A.(B10C507F4	.000	-14.250	54.920	.000	BREF 14.0502 INCHES
(APP041)	DA17.LTPT138.DRB2A.(B10C507F4	.000	-14.250	84.920	.000	XPRP 13.1469 INCHES
						ZPRP 6.0000 INCHES
						SCALE .0150 INCHES

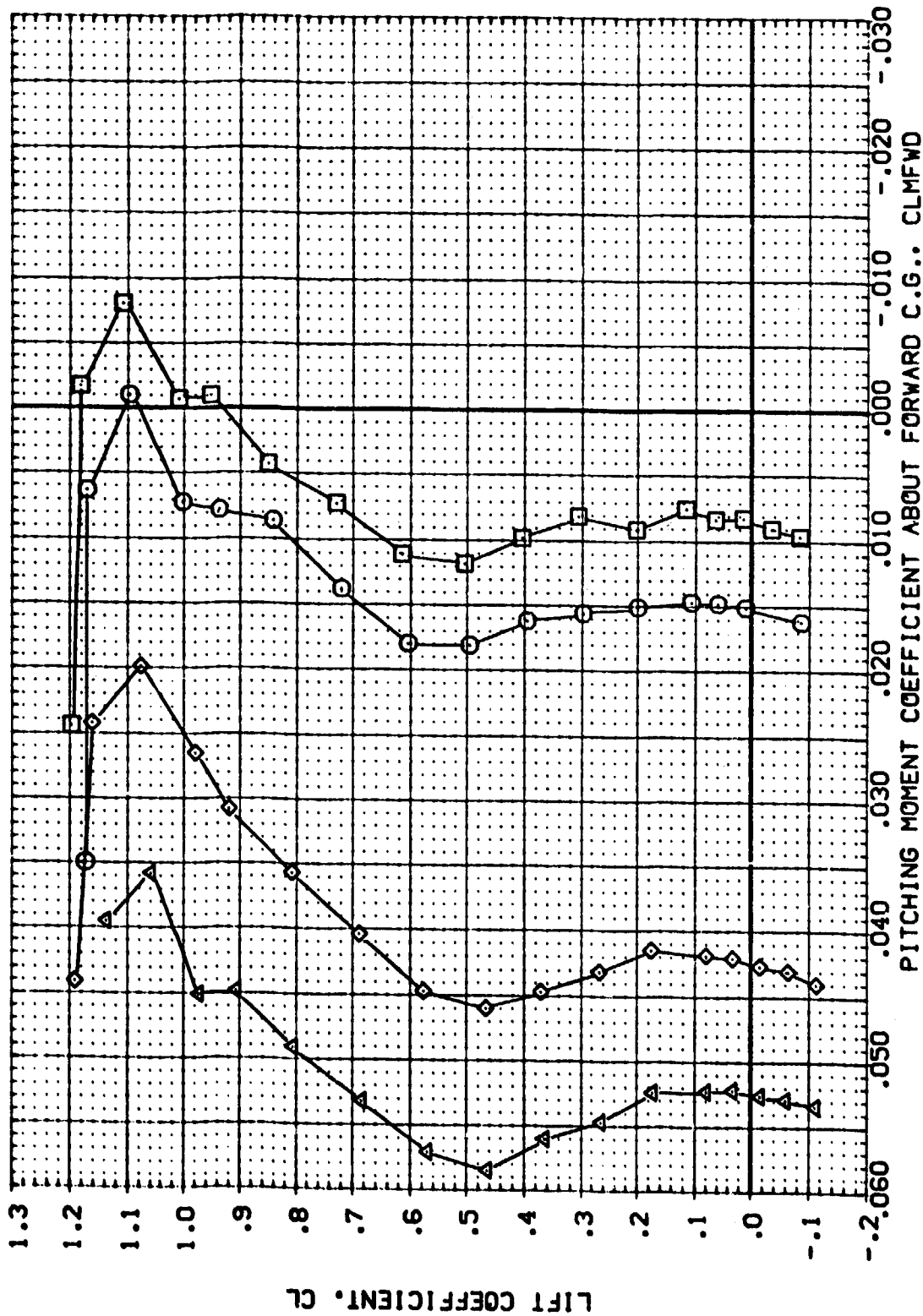


FIGURE 26 089B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A) RN/L = 4.70

DATA SET SYMBO	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APC27)	DA17.LIPT138.CRB2A.(B1DC507F4	.000	-14.250	24.920	.000	SREF 87.1560 SO.IN.
(APC26)	DA17.LIPT138.CRB2A.(B1DC507F4	.000	-14.250	.000	.000	LREF 19.9245 INCHES
(APC23)	DA17.LIPT138.CRB2A.(B1DC507F4	.000	-14.250	54.920	.000	BREF 14.0502 INCHES
(APC41)	DA17.LIPT138.CRB2A.(B1DC507F4	.000	-14.250	84.920	.000	YMRP 13.1469 INCHES
						ZMRP 6.0000 INCHES
						SCALE .0150

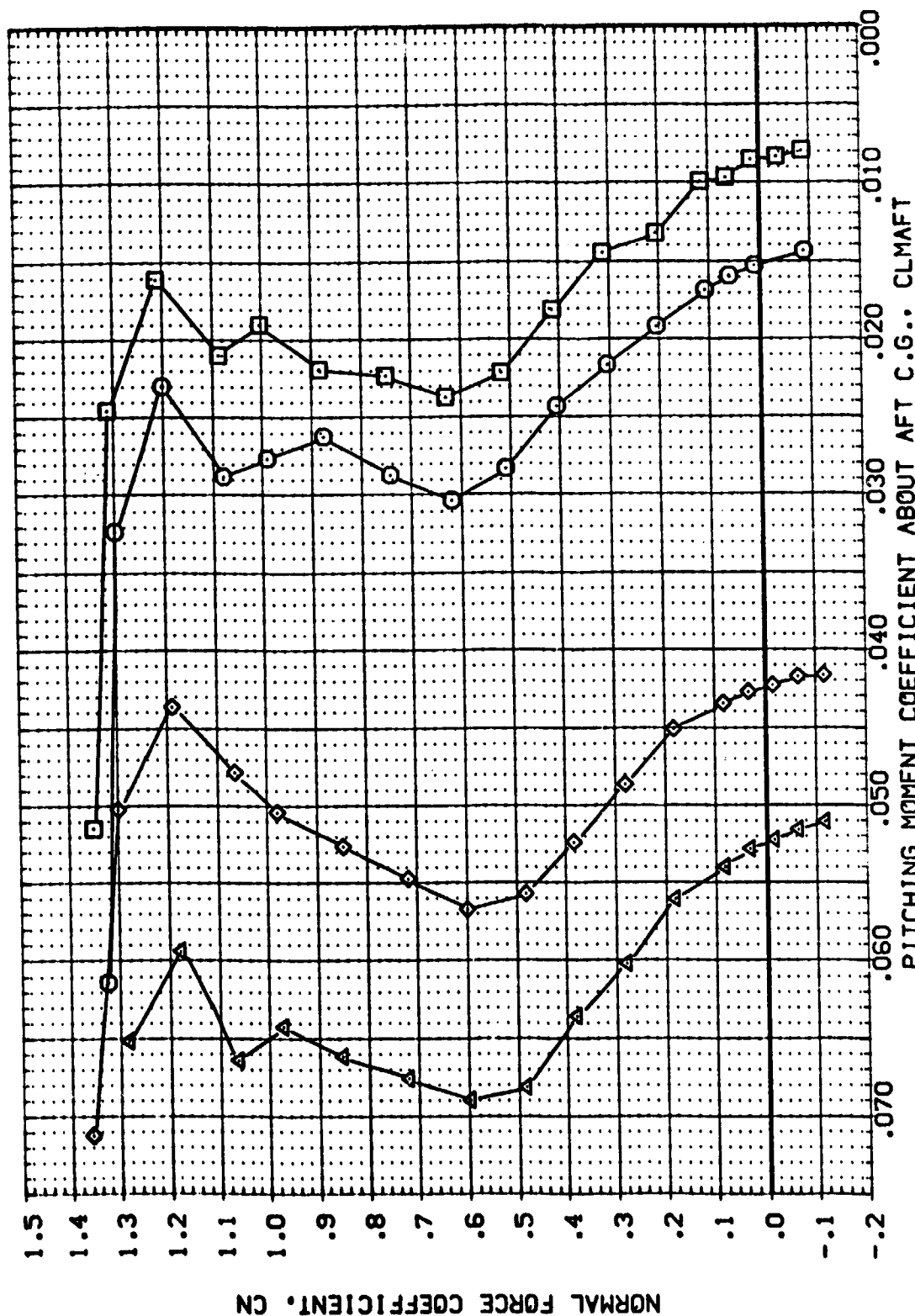


FIGURE 26 089B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APPO27)	DA17.LTPT138.CR82A.(B1OC507F4	.000	-14.250	24.920	.000	SREF 87.1560 SO.IN.
(APPO26)	DA17.LTPT138.CR82A.(B1OC507F4	.000	-14.250	24.920	.000	LREF 19.9245 INCHES
(APPO23)	DA17.LTPT138.CR82A.(B1OC507F4	.000	-14.250	54.920	.000	BREF 14.0502 INCHES
(APPO41)	DA17.LTPT138.CR82A.(B1OC507F4	.000	-14.250	84.920	.000	YMRP 13.1469 INCHES
						ZMRP .0000 INCHES
						SCALE 6.0000 INCHES
						SCALE .0150

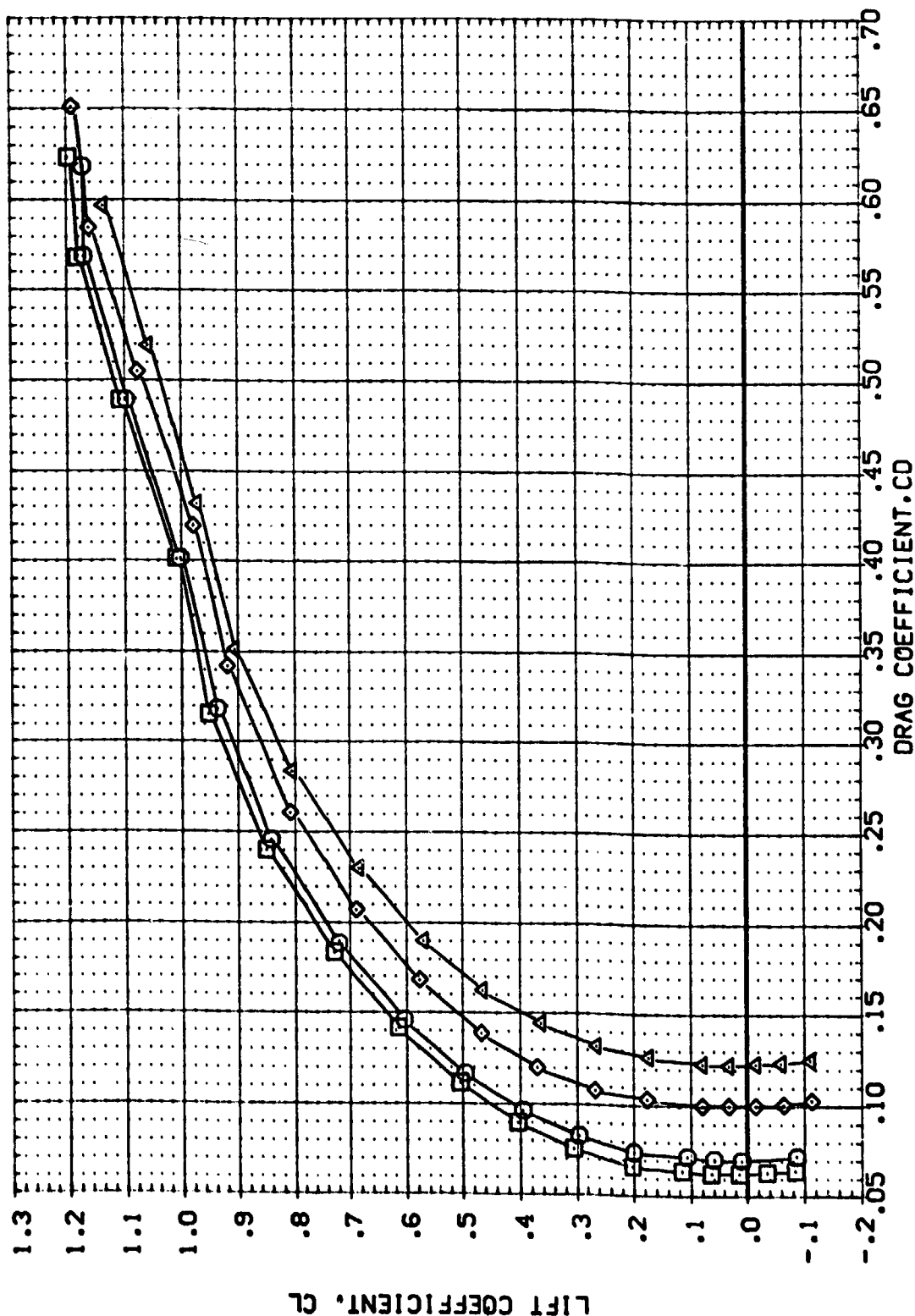


FIGURE 26 0898 ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 4.70



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDER	REFERENCE INFORMATION
(RPPC27)	CA17.LTPT138.0882A.(810C507F4	.000	-14.250	24.920	.000	SREF 87.1560 SQ.IN.
(RPPC26)	CA17.LTPT138.0882A.(810C507F4	.000	-14.250	.000	.000	LREF 19.9245 INCHES
(RPPC23)	CA17.LTPT138.0882A.(810C507F4	.000	-14.250	54.920	.000	BREF 14.0502 INCHES
(RPPC41)	CA17.LTPT138.0882A.(810C507F4	.000	-14.250	84.920	.000	XREF 13.1468 INCHES
						YREF .0000 INCHES
						ZREF 6.0000 INCHES
						SCALE .0150

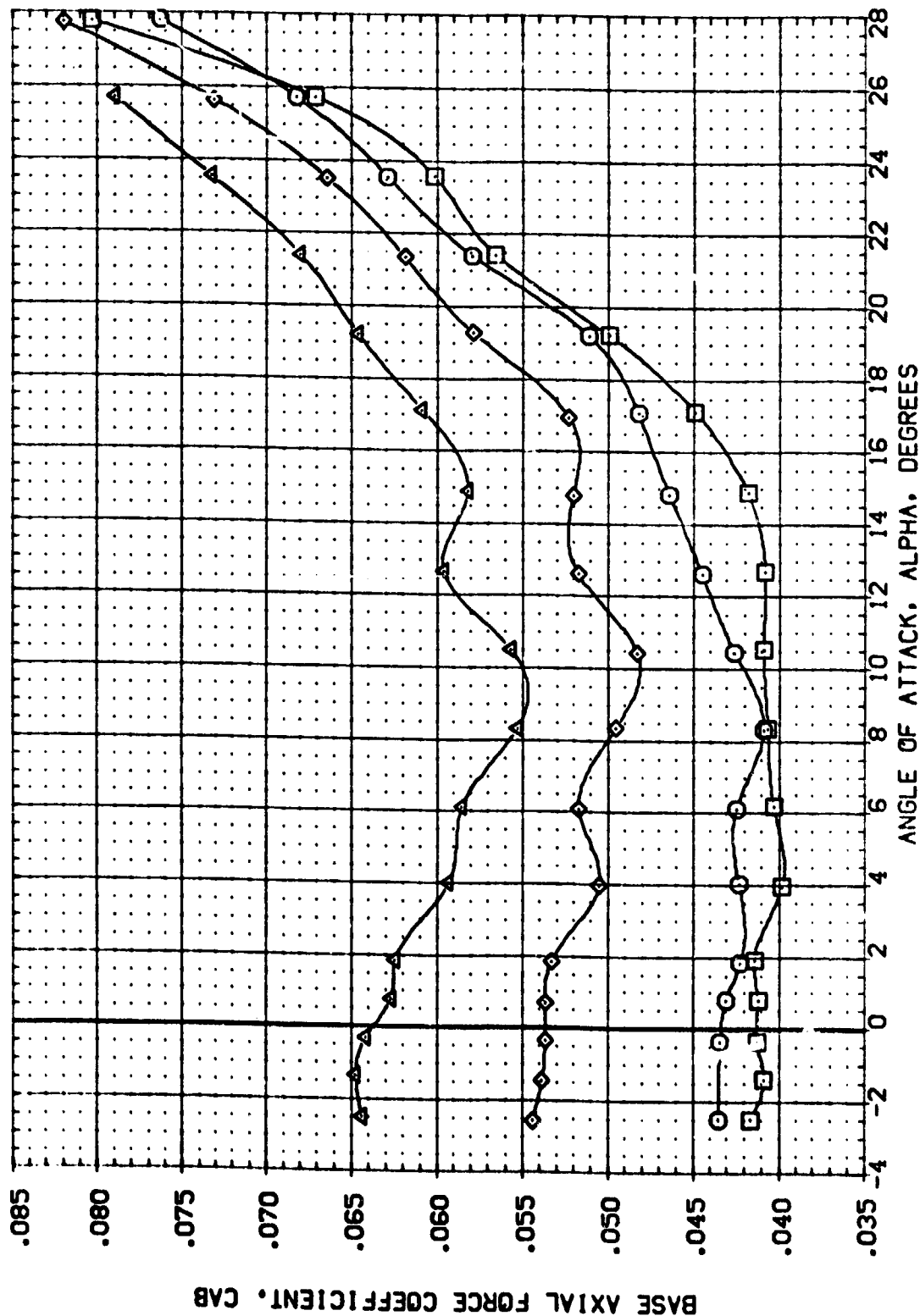


FIGURE 26 089B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A) RN/L = 4.70

DATA SET SYMBOL CONFIGURATION DESCRIPTION ELEVTR BDFLAP SPOBRK RUDDER REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BDFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APPC27)	CA17.LTPT138.0R82A.(B10C507F4	.000	-14.250	24.920	.000	SREF 87.1560 SQ. IN.
(APPC26)	CA17.LTPT138.0R82A.(B10C507F4	.000	-14.250	.000	.000	LREF 19.9245 INC-ES
(APPC23)	CA17.LTPT138.0R82A.(B10C507F4	.000	-14.250	54.920	.000	BREF 14.0502 INC-ES
(APPC24)	CA17.LTPT138.0R82A.(B10C507F4	.000	-14.250	84.920	.000	XMRP 13.1469 INC-ES
						YMRP 6.0000 INC-ES
						ZMRP 6.0000 INC-ES
						SCALE .0150

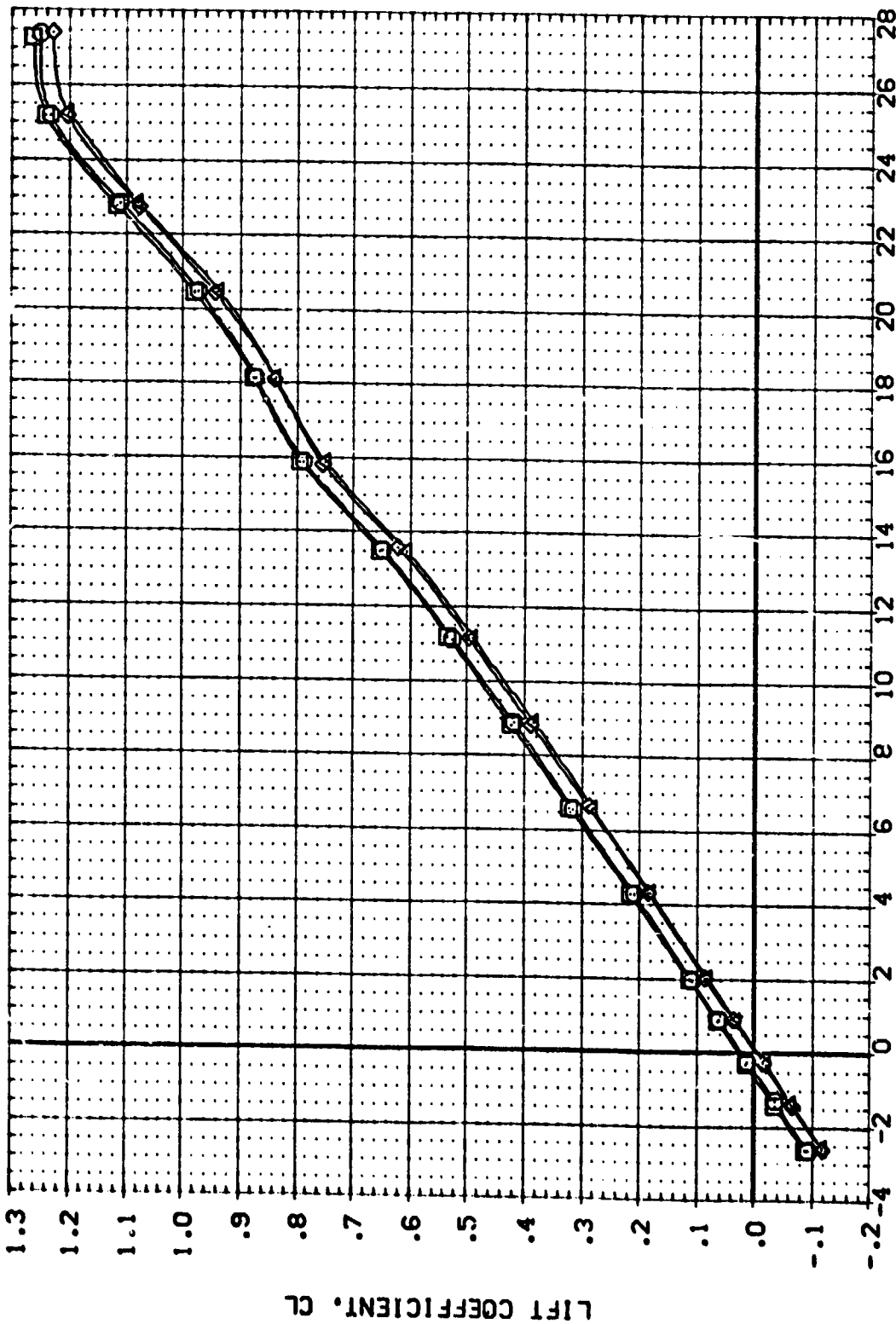


FIGURE 26 089B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APPO27)	CA17.LTPT138.0RB2A.(B10C507F4	.000	-14.250	24.920	.000	SREF 87.1550 SQ. IN.
(APPO26)	CA17.LTPT138.0RB2A.(B10C507F4	.000	-14.250	24.920	.000	LREF 19.9245 INCHES
(APPO23)	CA17.LTPT138.0RB2A.(B10C507F4	.000	-14.250	54.920	.000	BREF 14.0502 INCHES
(APPO41)	CA17.LTPT138.0RB2A.(B10C507F4	.000	-14.250	84.920	.000	XRRP 13.1469 INCHES
						YRRP .0000 INCHES
						ZRRP 6.0000 INCHES
						SCALE .0150 SCALE

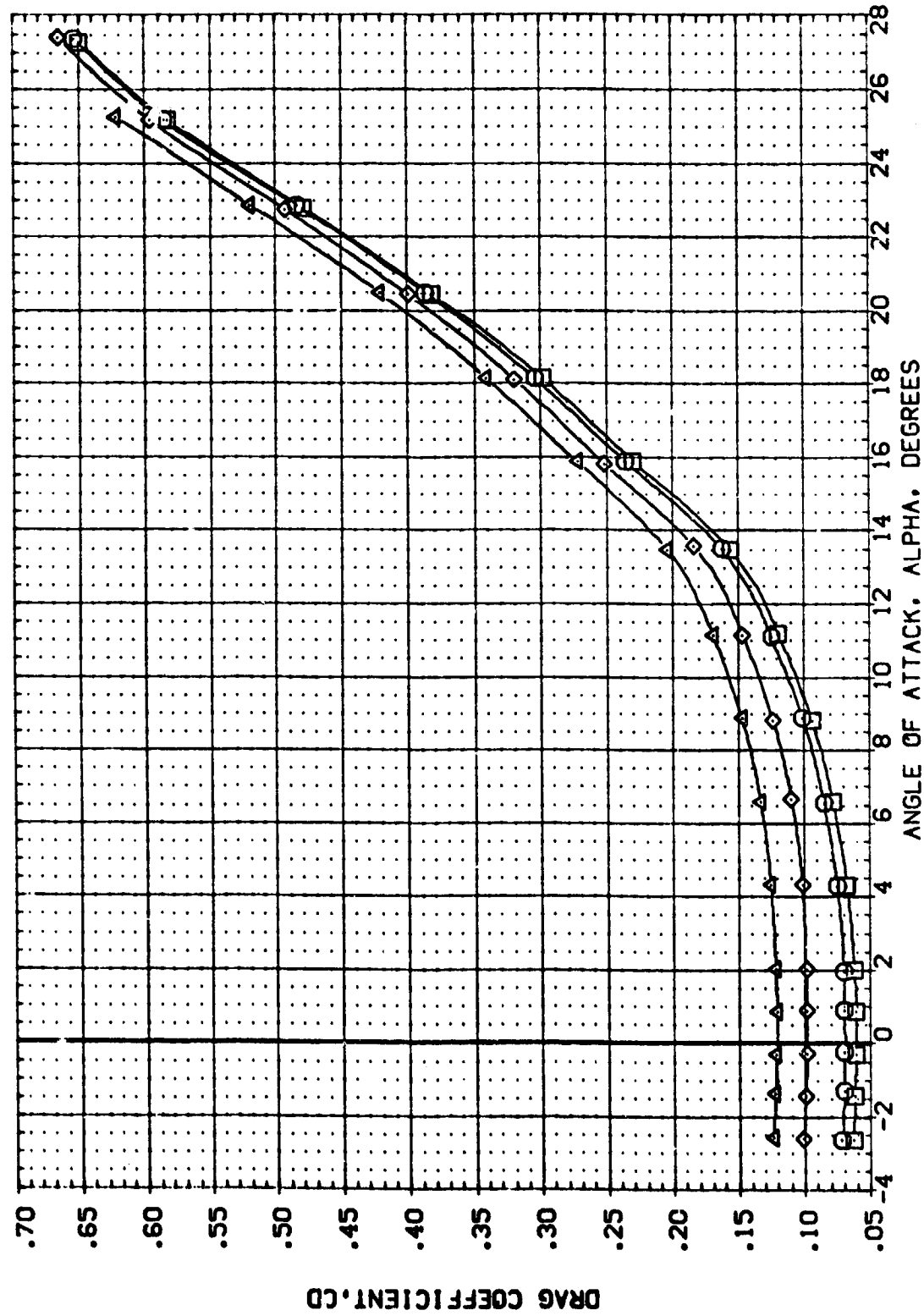


FIGURE 26 089B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBO	CONFIGURATION DESCRIPTION	ELEVTR	ROFLAP	SPOBRK	RLODER	REFERENCE INFORMATION
(APR027)	DA17.LTPT 38.08B2A.(B1D507F4	.000	-14.250	24.920	.000	SREF 87.1560 SQ.IN.
(APR026)	DA17.LTPT 38.08B2A.(B1D507F4	.000	-14.250	24.920	.000	LREF 19.9245 INCHES
(APR023)	DA17.LTPT 38.08B2A.(B1D507F4	.000	-14.250	54.920	.000	BREF 14.2502 INCHES
(APR041)	DA17.LTPT 38.08B2A.(B1D507F4	.000	-14.250	64.920	.000	YREF 13.1469 INCHES
						ZREF 6.0000 INCHES
						SCALE .0150

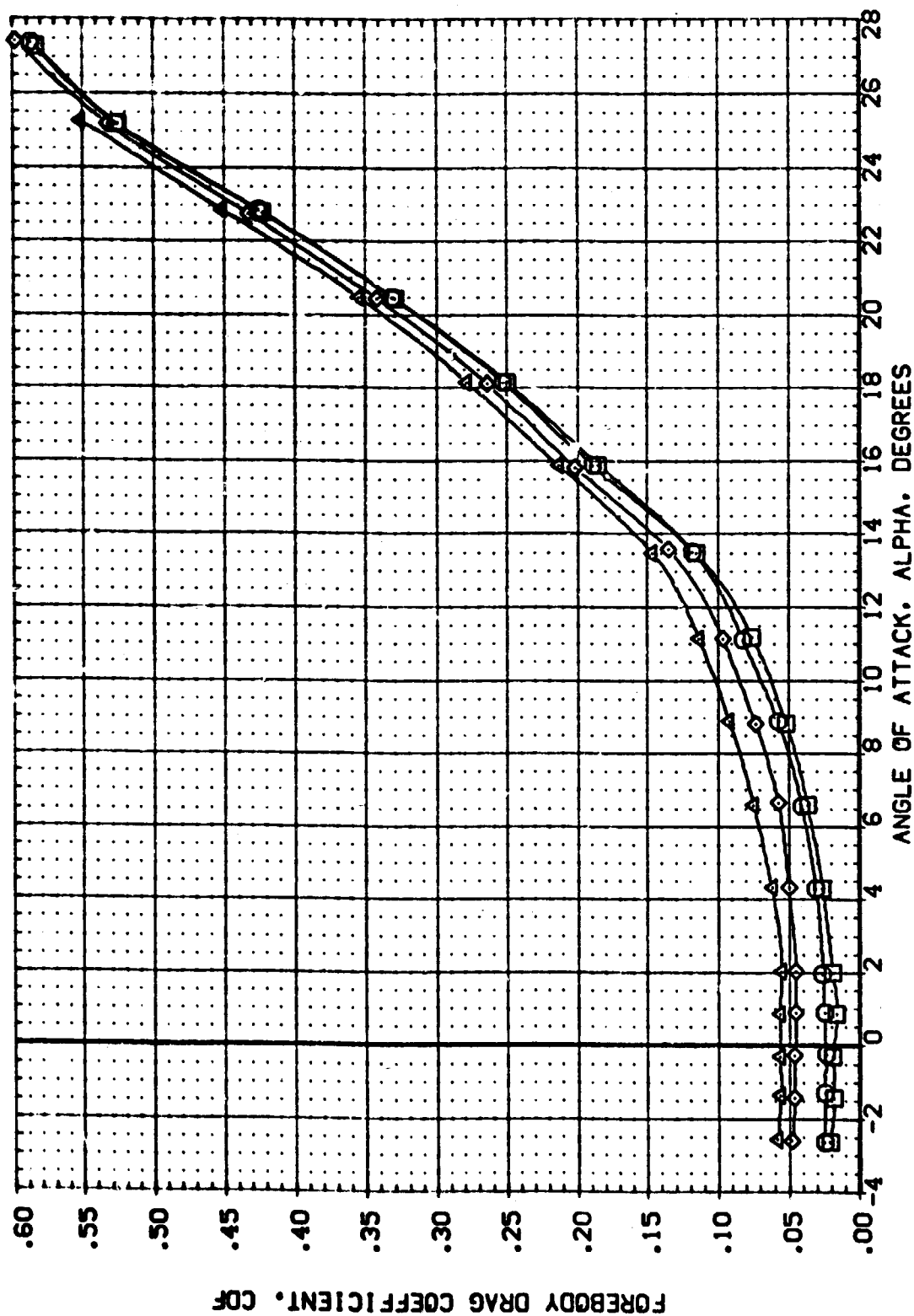


FIGURE 26 089B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(AJRN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(AP0027)	CA17.LTPT138.DRB2A.(B1DC507F4	.000	-14.250	24.920	.000	SREF 87.1560 50.150
(AP0026)	CA17.LTPT138.DRB2A.(B1DC507F4	.000	-14.250	.000	.000	LREF 19.9245 INCHES
(AP0023)	CA17.LTPT138.DRB2A.(B1DC507F4	.000	-14.250	54.920	.000	BREF 14.0502 INCHES
(AP0024)	CA17.LTPT138.DRB2A.(B1DC507F4	.000	-14.250	84.920	.000	XREF 13.1469 INCHES
						YREF .0000 INCHES
						ZREF 6.0000 INCHES
						SCALE .0150

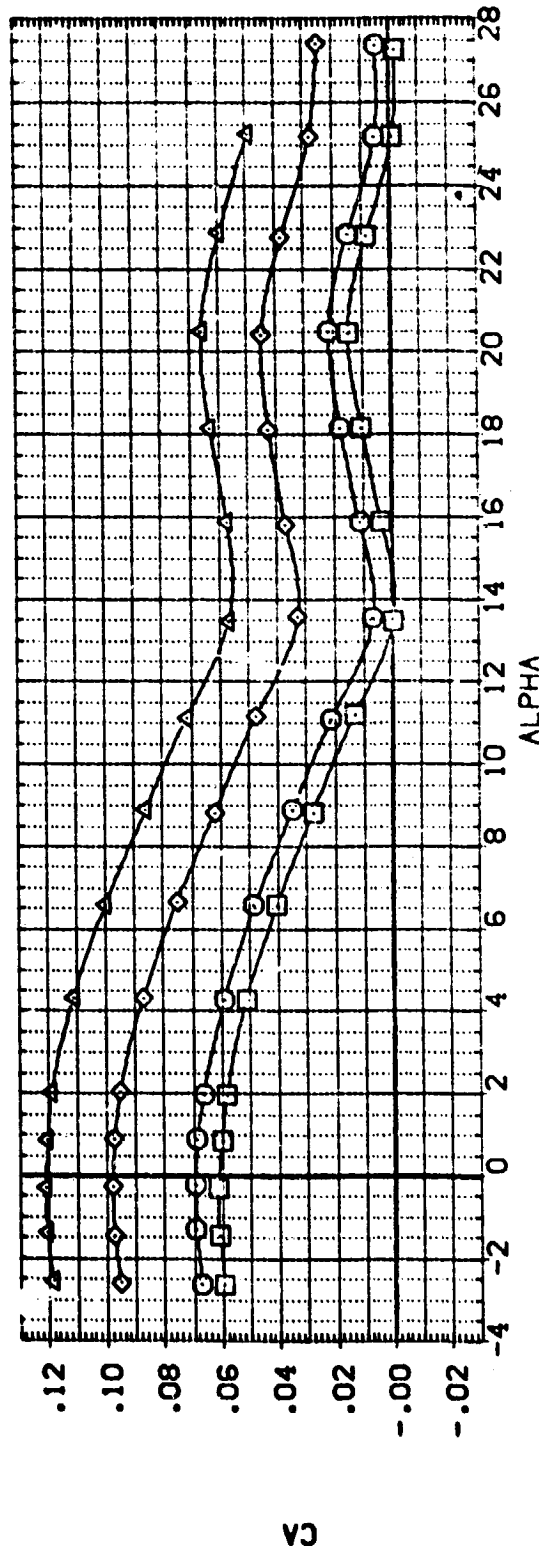
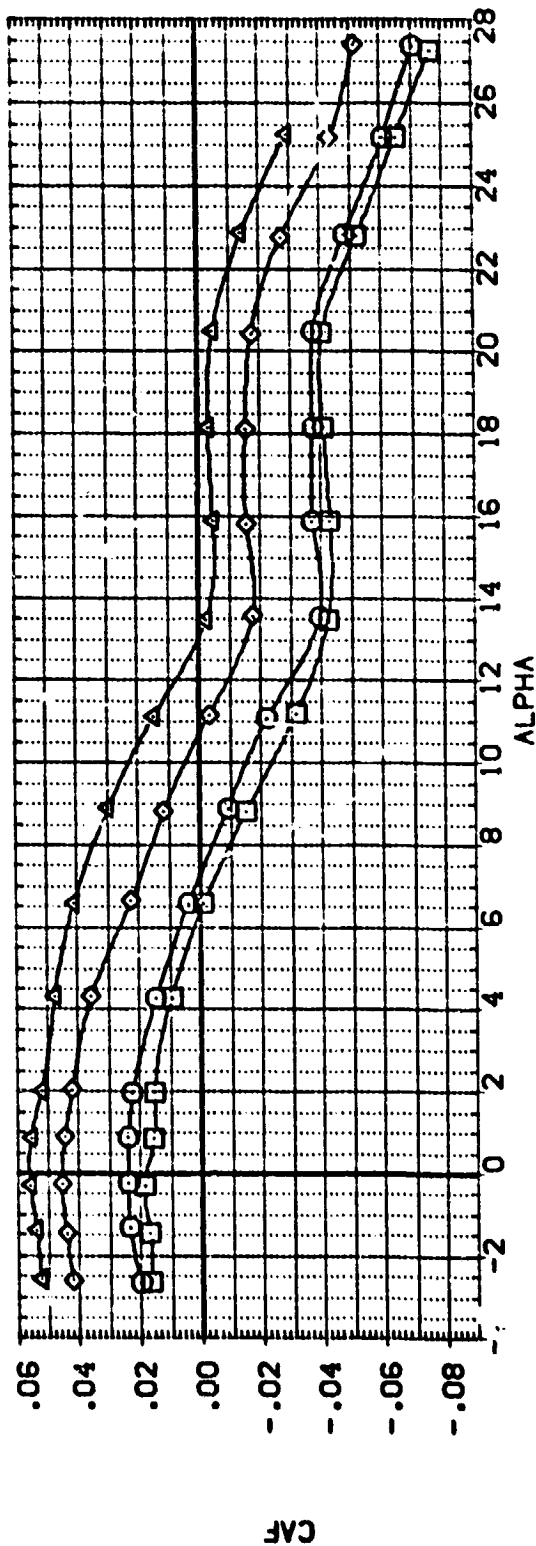


FIGURE 26 0898 ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BDFLAP	SPOBRK	RLODER	REFERENCE INFORMATION
(APC27)	CA17.LTPT 38.CRB2A.(B1OC507F4	.000	-14.250	24.920	.000	SREF 87.1550 50.1N
(APC26)	CA17.LTPT 38.CRB2A.(B1OC507F4	.000	-14.250	.000	.000	LREF 19.9245 INCHES
(APC23)	CA17.LTPT 38.CRB2A.(B1OC507F4	.000	-14.250	54.920	.000	BREF 14.0502 INCHES
(APC41)	CA17.LTPT 38.CRB2A.(B1OC507F4	.000	-14.250	84.920	.000	XPRP 13.1469 INCHES
						YPRP .0000 INCHES
						ZPRP 6.0000 INCHES
						SCALE .0150

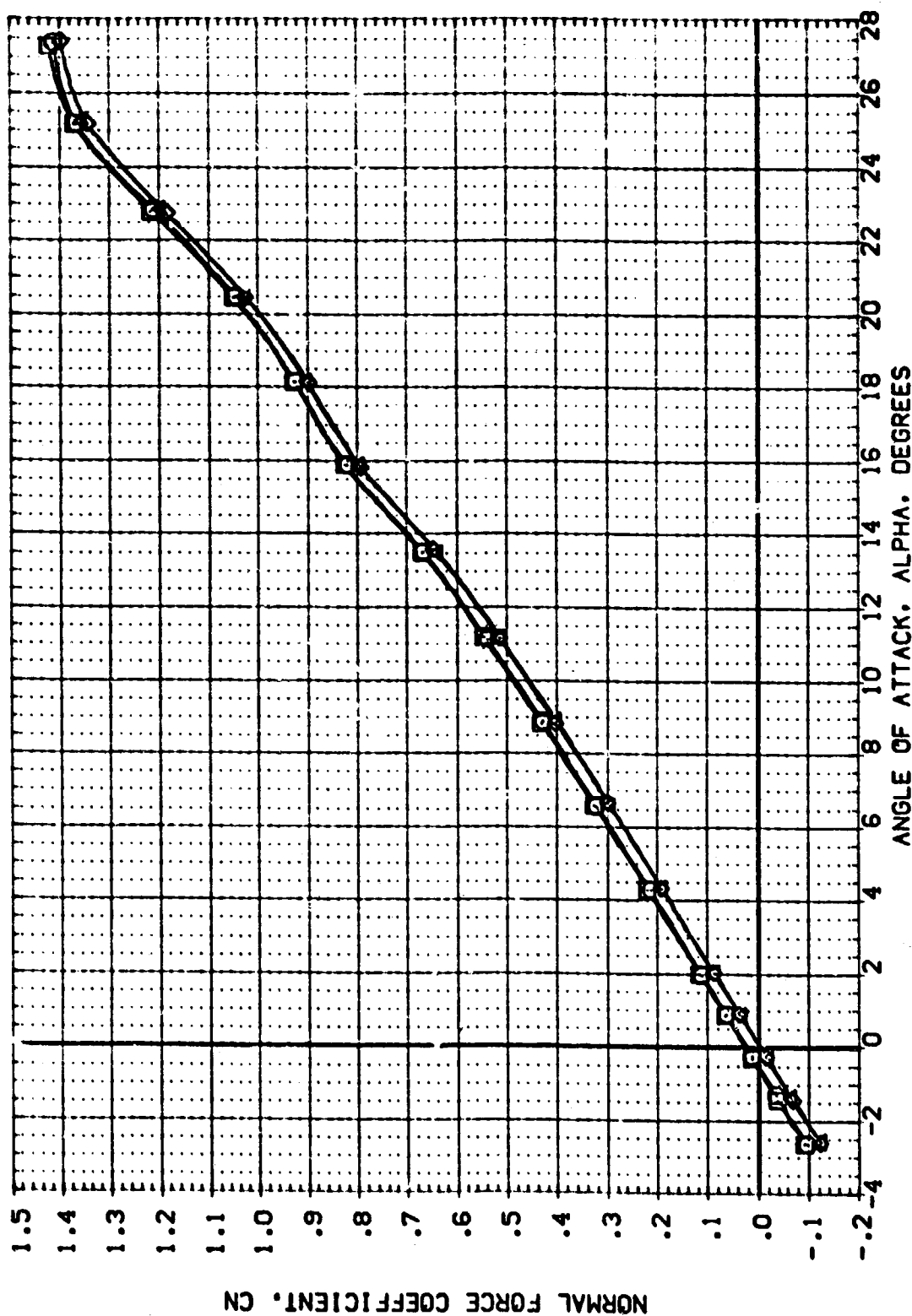


FIGURE 26 089B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 10.00



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPDBRK	RLOOR	REFERENCE INFORMATION
(APP27)	DA17, L1PT, 38, DB2A, (B1DC507F4	.000	-14.250	24.920	.000	SREF 87.1560
(APP28)	DA17, L1PT, 38, DB2A, (B1DC507F4	.000	-14.250	.000	.000	LREF 19.9245
(APP29)	CA17, L1PT, 38, DB2A, (B1DC507F4	.000	-14.250	54.920	.000	BREF 14.0502
(APP30)	CA17, L1PT, 38, DB2A, (B1DC507F4	.000	-14.250	84.920	.000	XREF 13.1469
(APP31)						YREF 6.0000
						ZREF 6.0000
						SCALE .0150

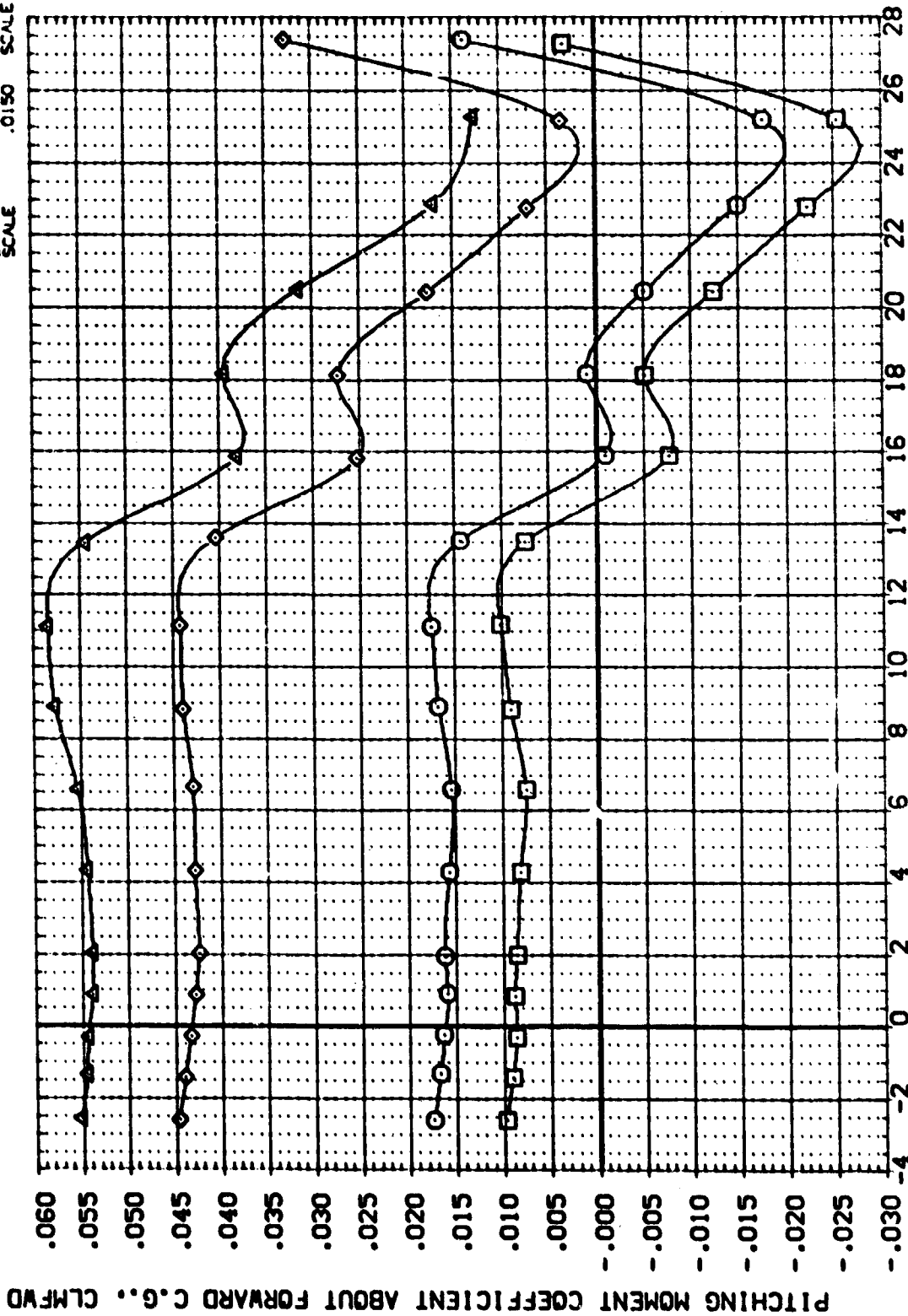


FIGURE 26 0898 ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BDFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APPO27)	CA17.LTPT 38.CRB2A.(8)DC507F.4	.000	-14.250	24.920	.000	SREF 87.1560 SO.IN.
(APPO26)	CA17.LTPT 38.CRB2A.(8)DC507F.4	.000	-14.250	24.920	.000	LREF 19.9245 INCHES
(APPO23)	CA17.LTPT 38.CRB2A.(8)DC507F.4	.000	-14.250	54.920	.000	BREF 14.0502 INCHES
(APPC11)	CA17.LTPT 38.CRB2A.(8)DC507F.4	.000	-14.250	84.920	.000	YREF 13.1469 INCHES
						YPRP .0000 INCHES
						SCALE .0150 INCHES

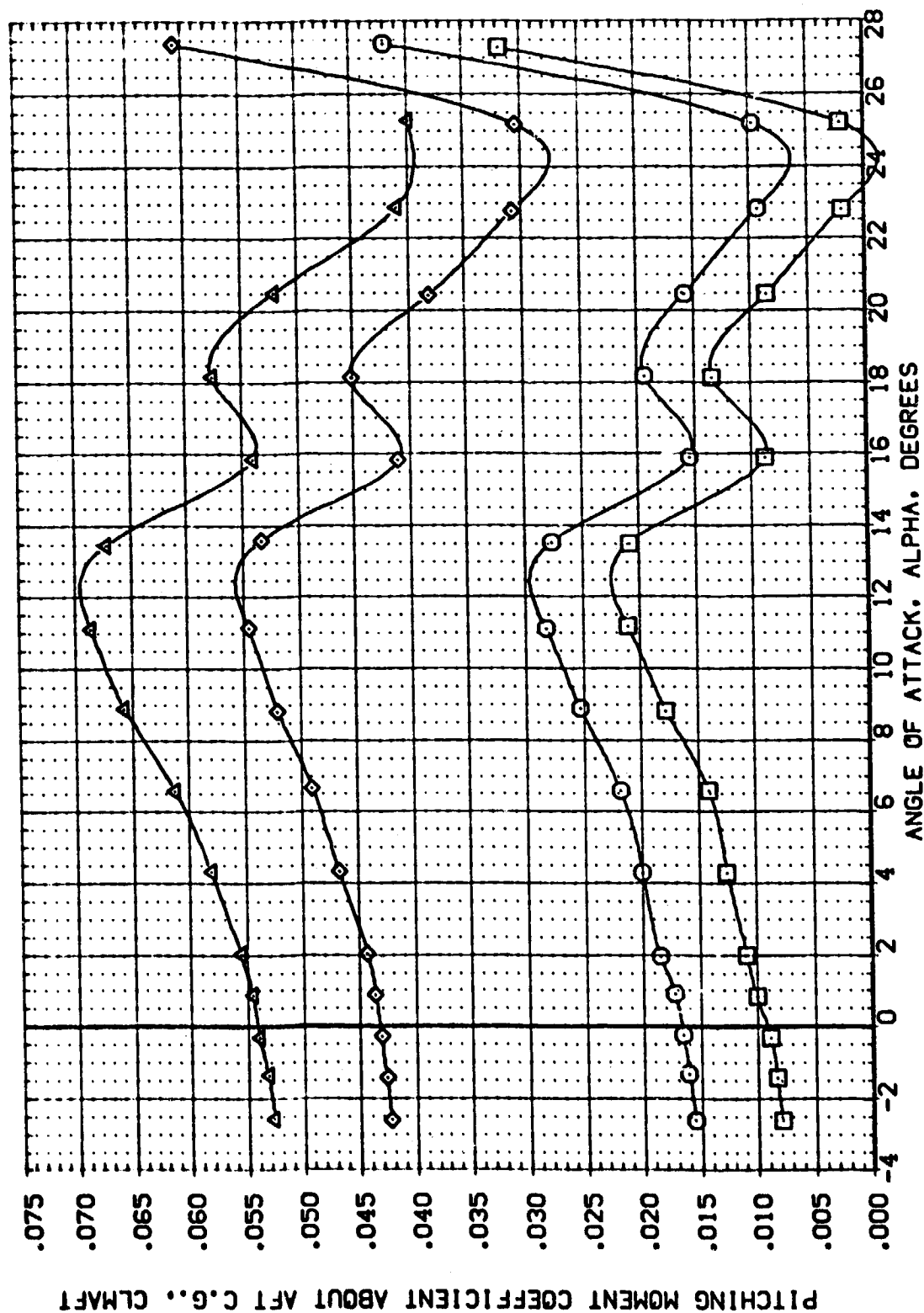


FIGURE 26 089B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(AJRN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APPC27)	DA17.LTPT138.C882A.(B10C507F4	.000	-14.250	24.920	.000	SREF 87.1560 50. IN
(APPC26)	DA17.LTPT138.C882A.(B10C507F4	.000	-14.250	.000	.000	LREF 19.5245 INCHES
(APPC23)	DA17.LTPT138.C882A.(B10C507F4	.000	-14.250	54.920	.000	BREF 14.0502 INCHES
(APPC41)	DA17.LTPT138.C882A.(B10C507F4	.000	-14.250	84.920	.000	XREF 13.1469 INCHES
						YREF 6.0000 INCHES
						ZREF 6.0000 INCHES
						SCALE .0150

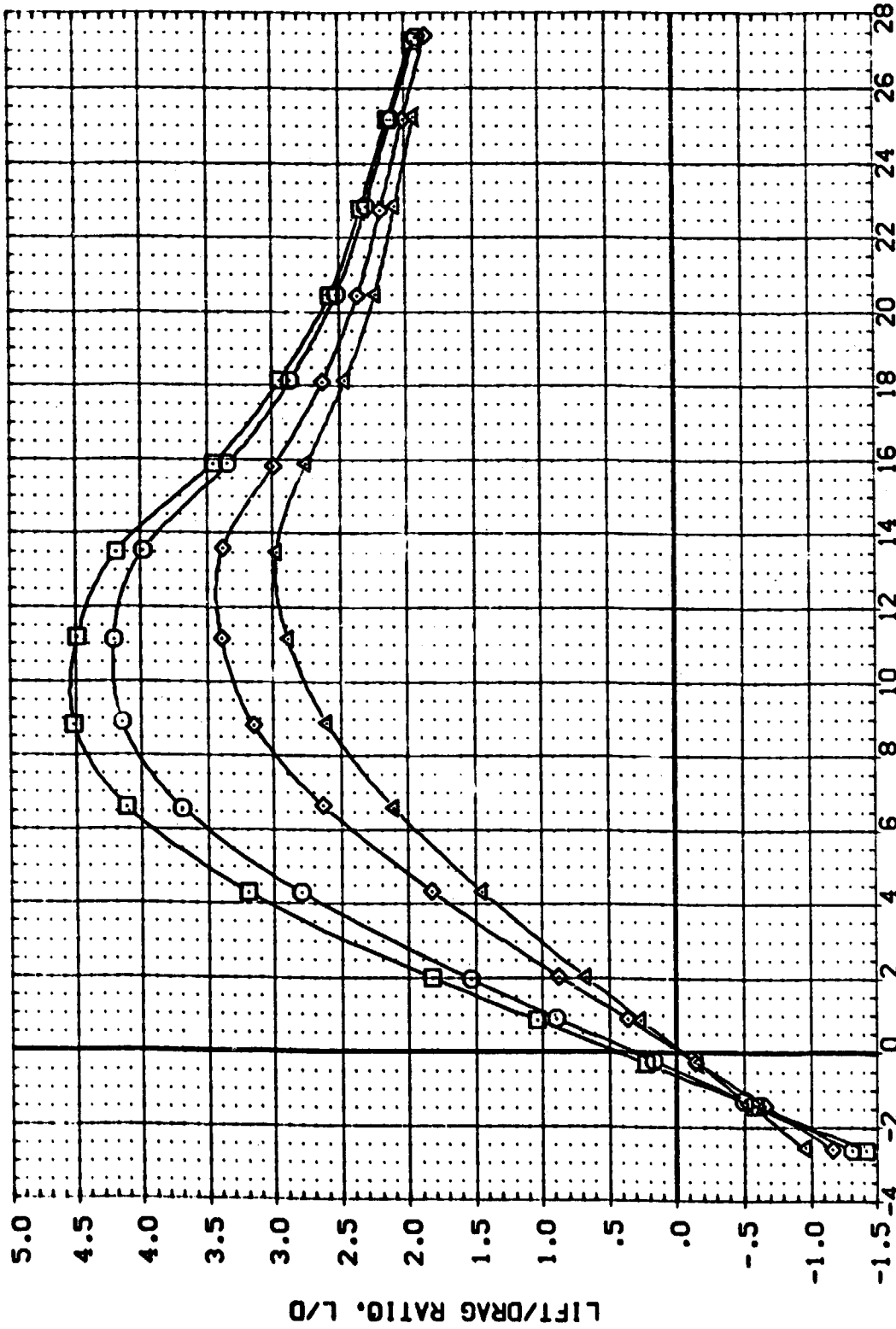
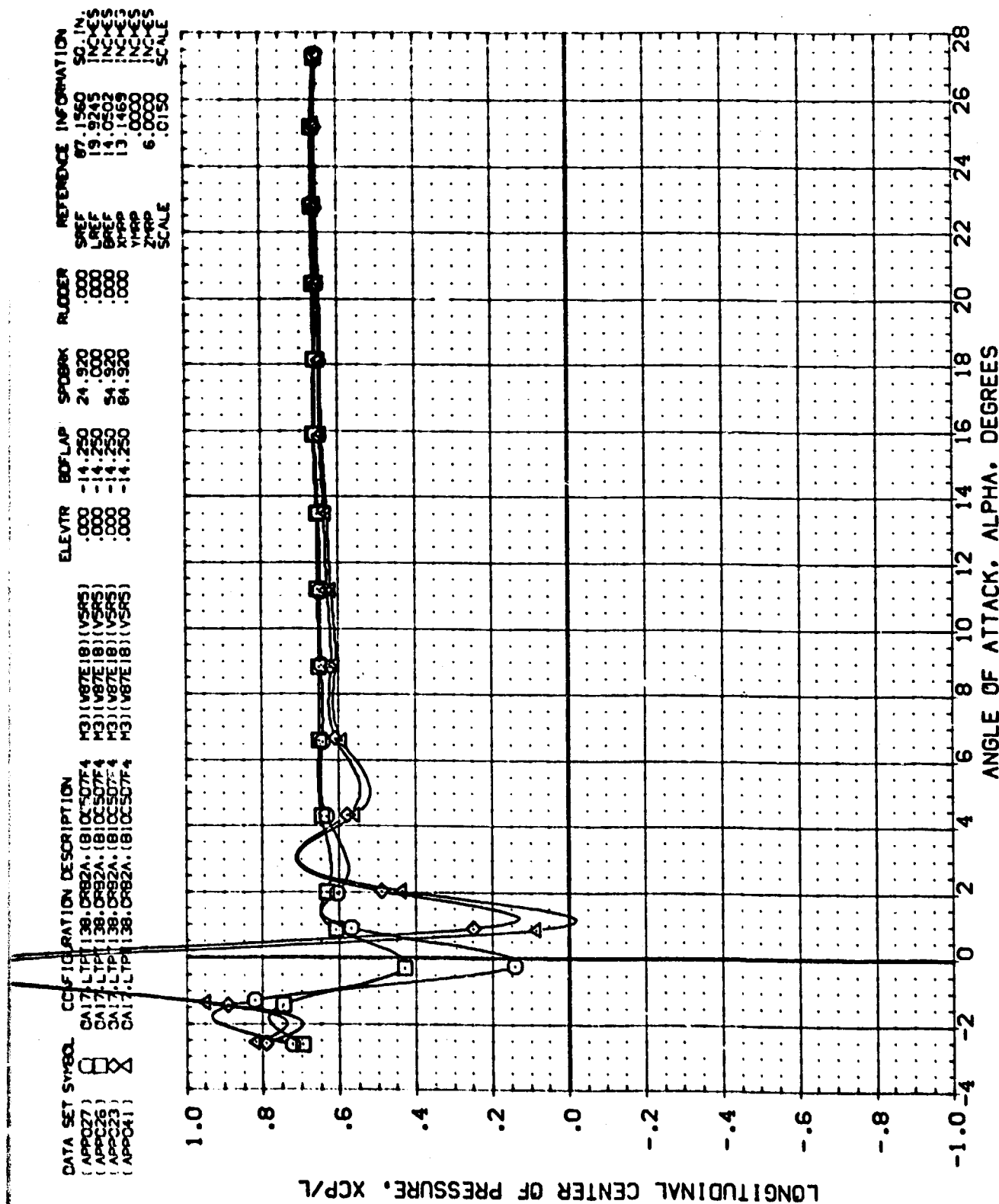


FIGURE 26 089B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 10.00



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BDFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APPC27)	CA17.L TPT138.CRB2A.(B10CS07F4	.000	-14.250	24.920	.000	SREF 87.1560 SQ.IN.
(APPC26)	CA17.L TPT138.CRB2A.(B10CS07F4	.000	-14.250	.000	.000	LREF 19.9245 INCHES
(APPC23)	CA17.L TPT138.CRB2A.(B10CS07F4	.000	-14.250	54.920	.000	BREF 14.0502 INCHES
(APPC41)	CA17.L TPT138.CRB2A.(B10CS07F4	.000	-14.250	84.920	.000	XREF 13.1469 INCHES
						YREF .0000 INCHES
						ZREF 6.0000 INCHES
						SCALE .0150

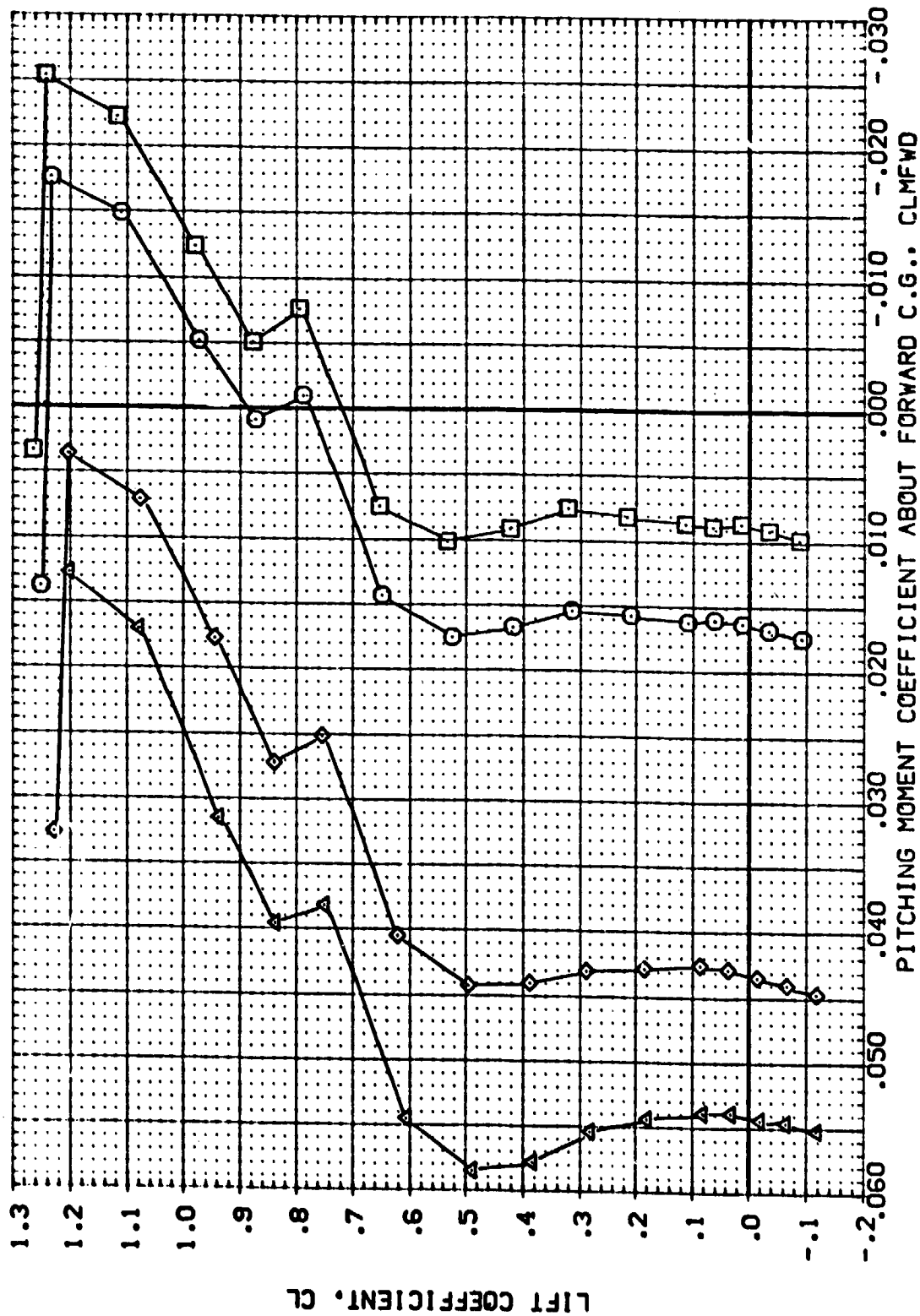


FIGURE 26 089B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(AJRN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APPO27)	CA17.LTPT138.DR82A.(810C507F4	.000	-14.250	24.920	.000	SREF 87.1560 50.1N.
(APPC26)	CA17.LTPT138.DR82A.(810C507F4	.000	-14.250	.000	.000	LREF 19.9245 INCHES
(APPC23)	CA17.LTPT138.DR82A.(810C507F4	.000	-14.250	54.920	.000	BREF 14.0502 INCHES
(APPC41)	CA17.LTPT138.DR82A.(810C507F4	.000	-14.250	84.920	.000	XREF 13.1469 INCHES
						YREF 6.0000 INCHES
						ZREF 6.0000 INCHES
						SCALE .0150

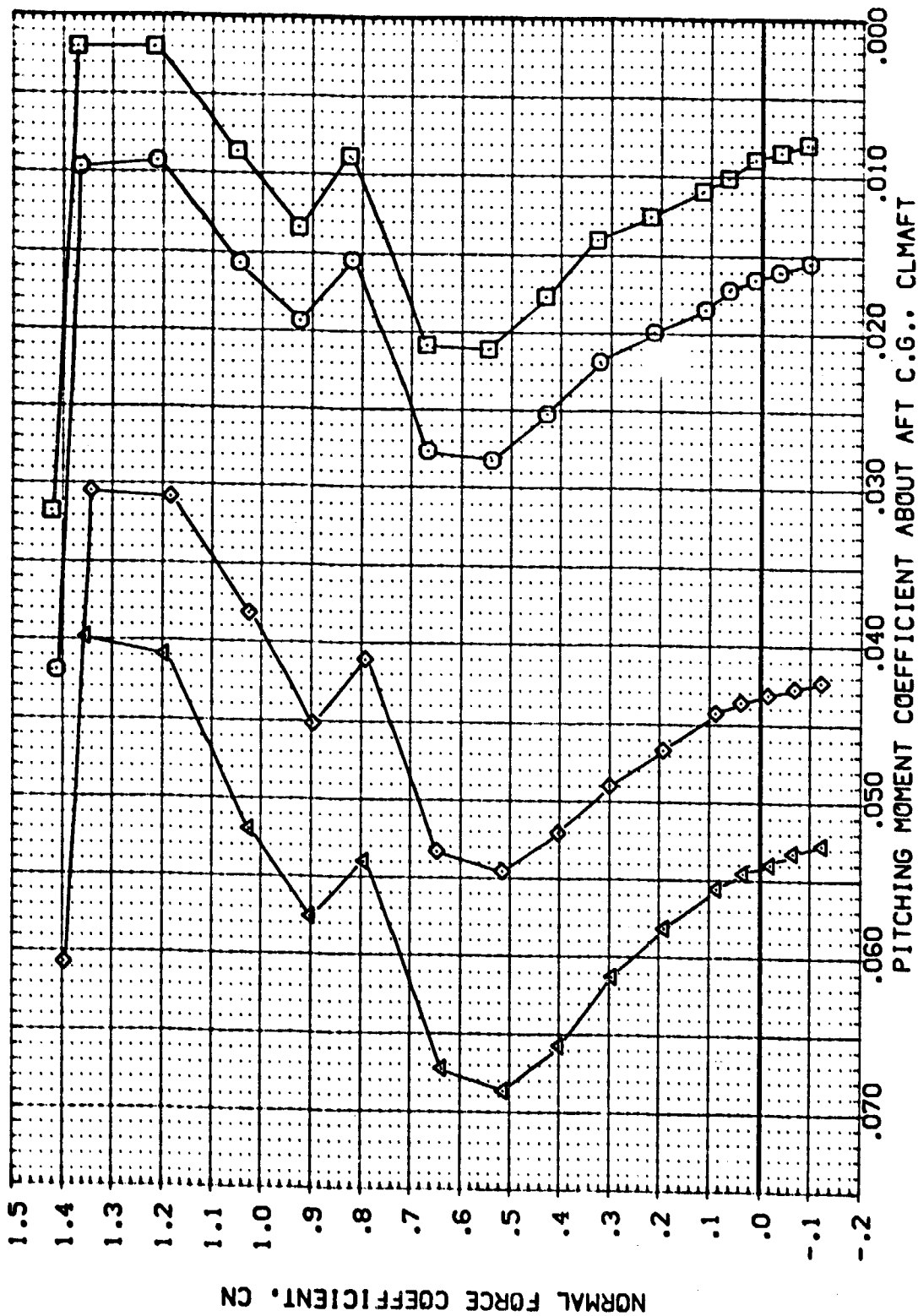


FIGURE 26 0898 ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A) RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	M31(V87E18)(V5K5)	ELEVTR	BOFLAP	SPDRK	RUDDER	REFERENCE INFORMATION
(APP027)	CA17.LTPT138.DRB2A.(810C507F4		.000	-14.250	24.920	.000	SREF 87.1560 SQ.IN.
(APP026)	CA17.LTPT138.DRB2A.(810C507F4		.000	-14.250	24.920	.000	LREF 19.9245 INCHES
(APP023)	CA17.LTPT138.DRB2A.(810C507F4		.000	-14.250	54.920	.000	BREF 14.0502 INCHES
(APP041)	CA17.LTPT138.DRB2A.(810C507F4		.000	-14.250	84.920	.000	XREF 13.1469 INCHES
							YREF 6.0000 INCHES
							ZREF 6.0000 INCHES
							SCALE .0150

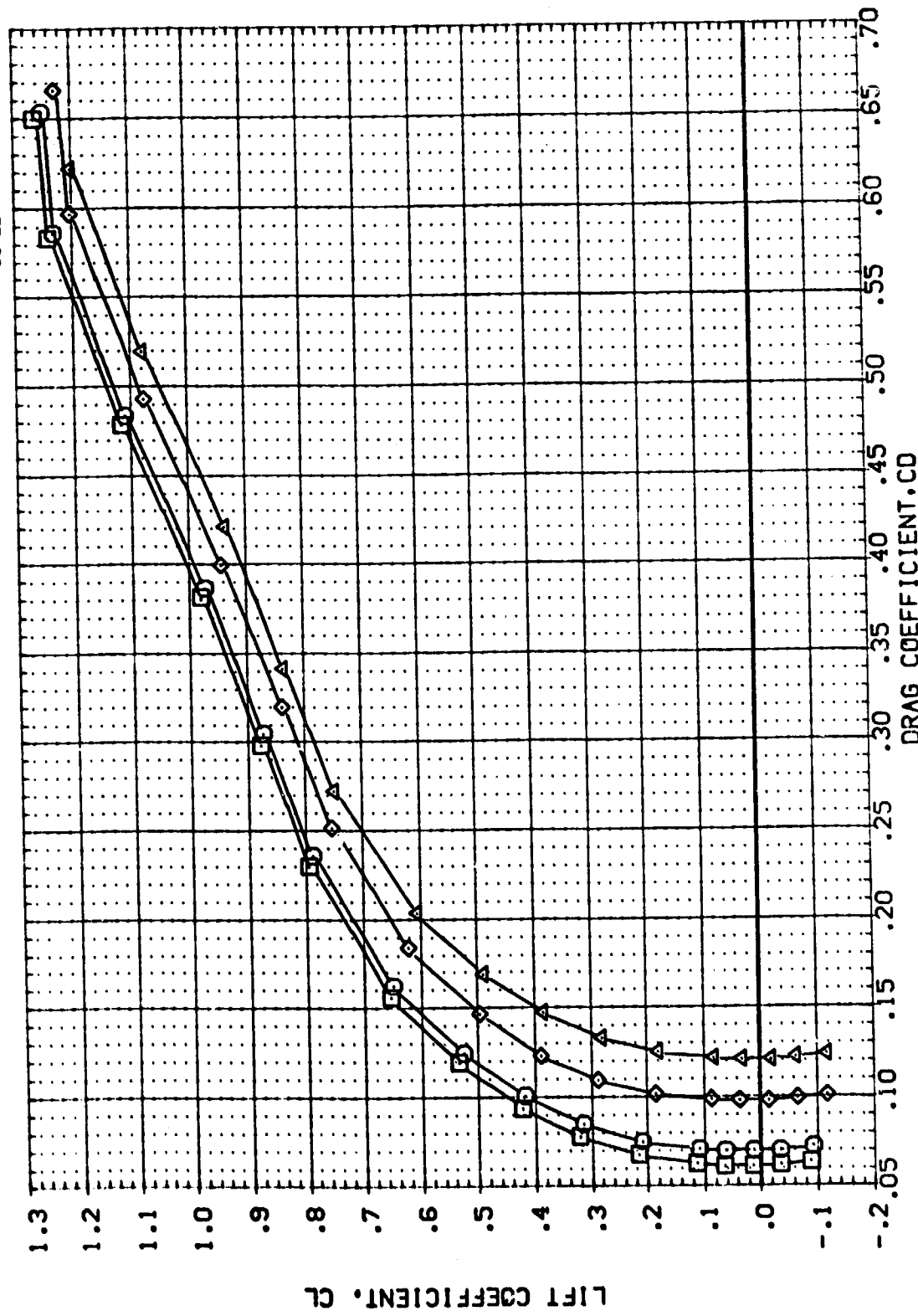


FIGURE 26 089B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPEEDRK	RUDDER	REFERENCE INFORMATION
(RPPC27)	CA17.LTPT138.DRB2A.(B10C507F4	.000	-14.250	24.920	.000	SREF 87.1560 SQ. IN.
(RPPC26)	CA17.LTPT138.DRB2A.(B10C507F4	.000	-14.250	.000	.000	LREF 19.9245 INCHES
(RPPC23)	CA17.LTPT138.DRB2A.(B10C507F4	.000	-14.250	54.920	.000	BREF 14.0502 INCHES
(RPPC41)	CA17.LTPT138.DRB2A.(B10C507F4	.000	-14.250	84.920	.000	XREF 13.1469 INCHES
						YREF .0000 INCHES
						ZREF 6.0000 INCHES
						SCALE .0150 INCHES

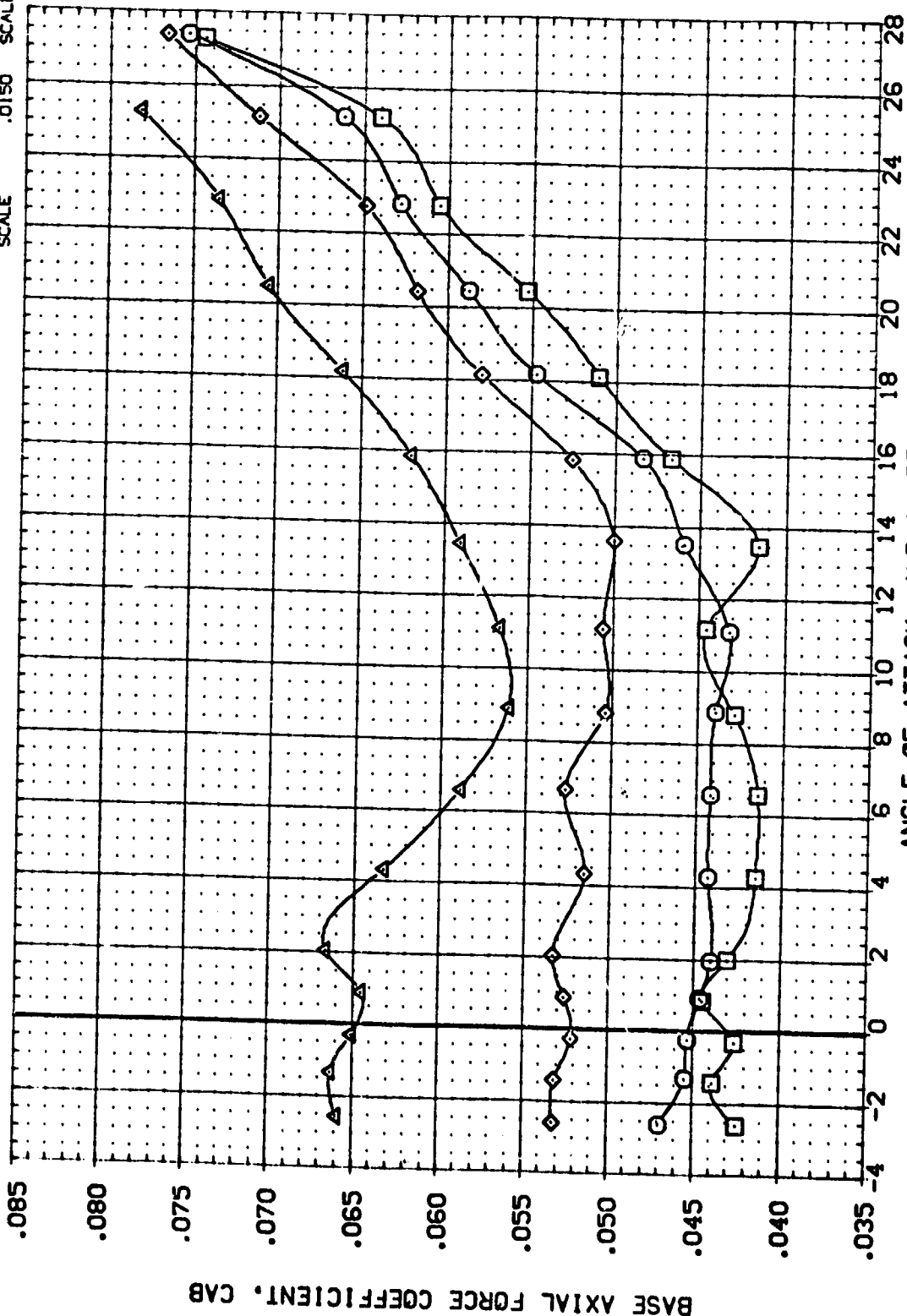


FIGURE 26 089B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(AJRN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPDBRK	RUDDER	REFERENCE INFORMATION
(APPC27)	0A17.LTPT138.CRB2A.(B10CS07F4	.000	-14.250	24.920	.000	SREF 87.1560 50. IN
(APPC26)	0A17.LTPT138.CRB2A.(B10CS07F4	.000	-14.250	.000	.000	LREF 19.9245 INCHES
(APPC23)	DATA NOT AVAILABLE	.000	-14.250	54.920	.000	BREF 14.0502 INCHES
(APPC41)	DATA NOT AVAILABLE	.000	-14.250	84.920	.000	XTRP 13.1469 INCHES
						YTRP .0000 INCHES
						ZTRP 6.0000 INCHES
						SCALE .0150

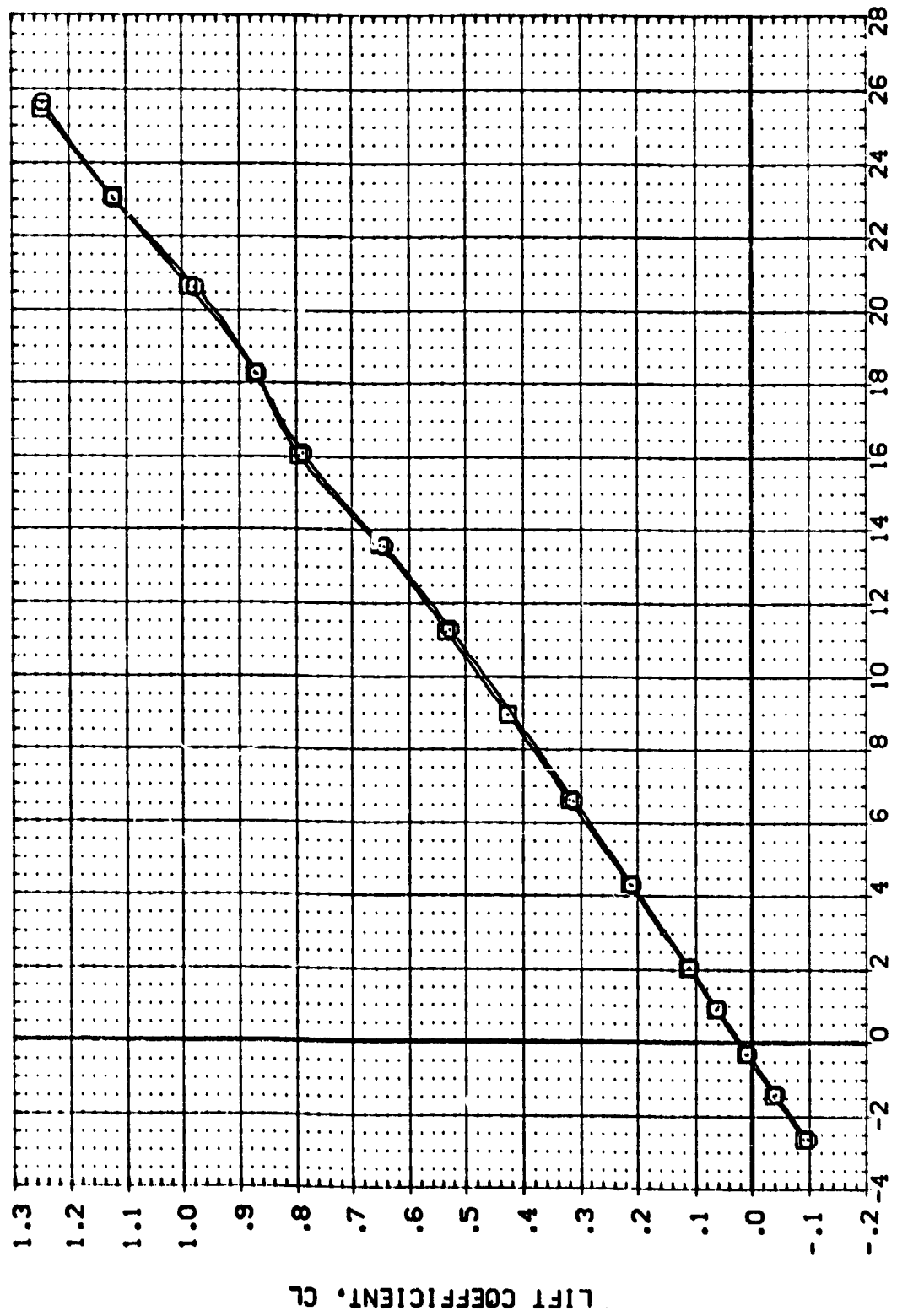


FIGURE 26 089B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 12.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APPC27)	DA17.L1PT138.ORB2A.1B1OC507F4	.000	-14.250	24.920	.000	SREF 87.1560 SO. IN.
(APPC26)	DA17.L1PT138.ORB2A.1B1OC507F4	.000	-14.250	.000	.000	LREF 19.9245 INCHES
(APPC23)	DATA NOT AVAILABLE	.000	-14.250	54.920	.000	BREF 14.0502 INCHES
(APPC41)	DATA NOT AVAILABLE	.000	-14.250	84.920	.000	XMRP 13.1469 INCHES
						YMRP .0000 INCHES
						ZMRP 6.0000 INCHES
						SCALE .0150 INCHES

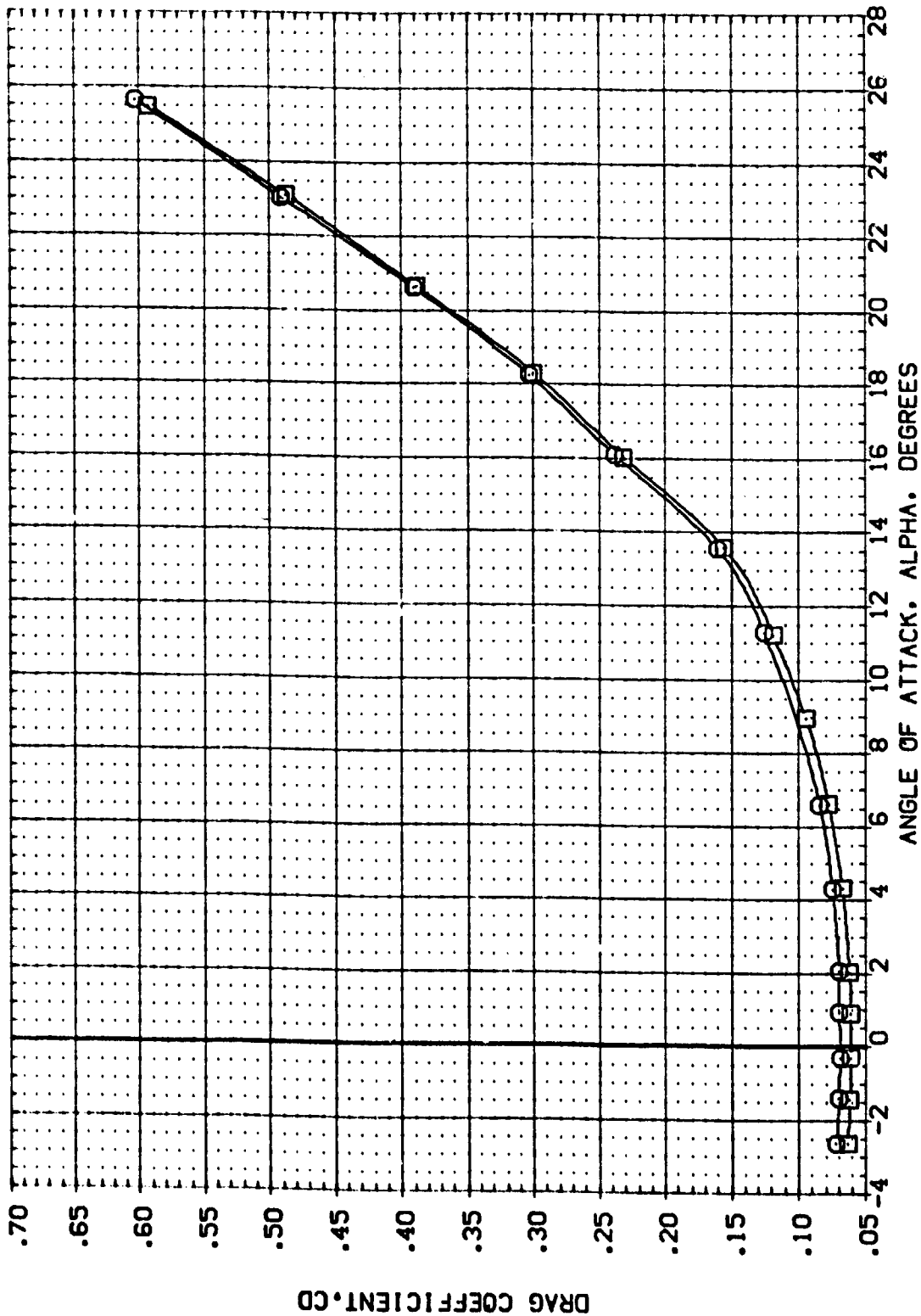


FIGURE 26 0898 ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 12.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
[Symbol]	DA17.LTPT138.CR82A.(B10C507F4)	.000	-14.250	24.920	.000	SREF 87.1560 SO IN.
[Symbol]	DA17.LTPT138.CR82A.(B10C507F4)	.000	-14.250	.000	.000	LREF 19.9245 INCHES
[Symbol]	DATA NOT AVAILABLE	.000	-14.250	54.920	.000	BREF 14.0502 INCHES
[Symbol]	DATA NOT AVAILABLE	.000	-14.250	84.920	.000	XMRP 13.1469 INCHES
[Symbol]						ZMRP .0000 INCHES
						SCALE .0150

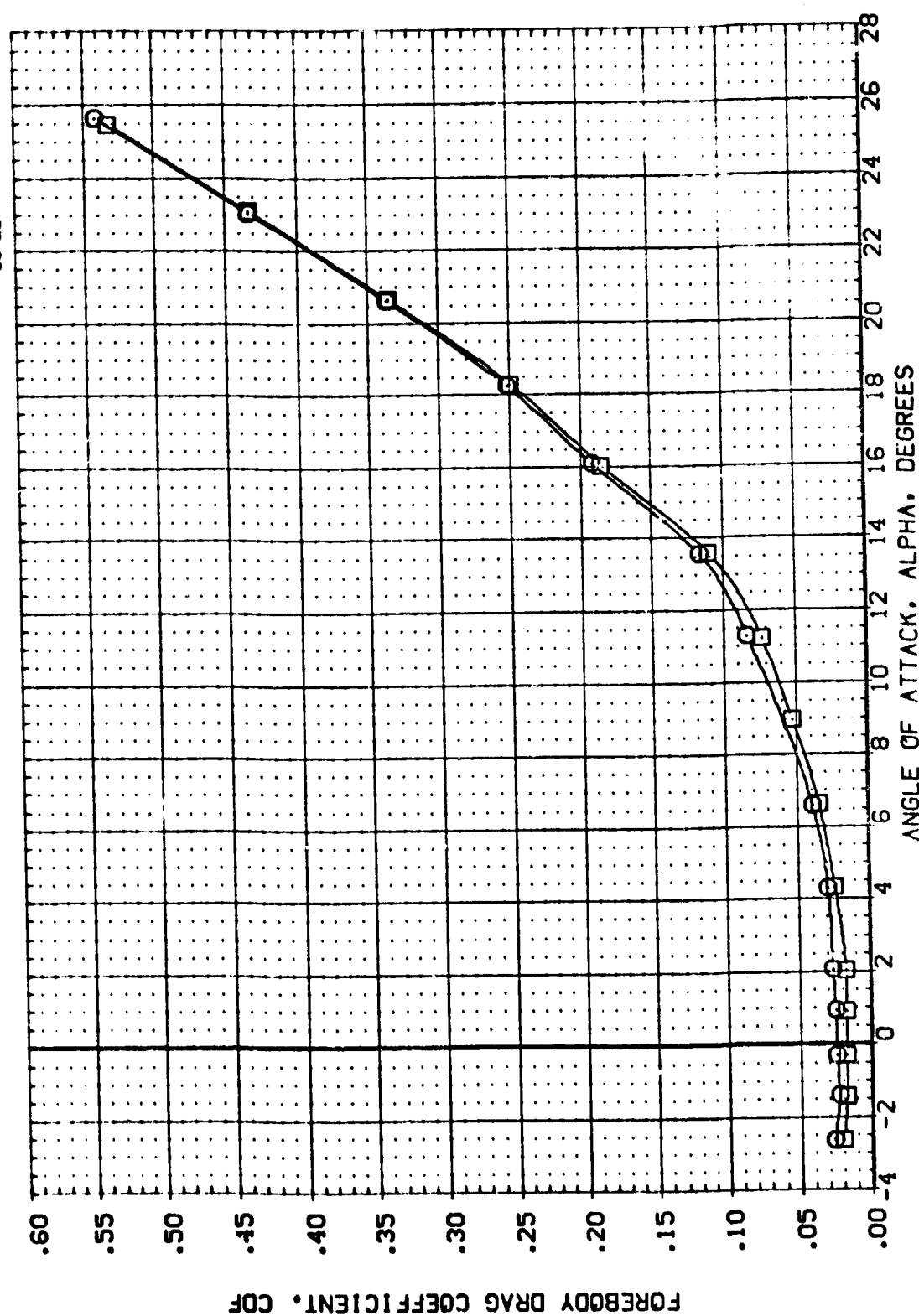


FIGURE 26 0898 ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 12.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APPC27)	0A17,LTPT138,CR82A,(B10C507F4	.000	-14.25J	24.920	.000	SREF 87.1560 SO.IN.
(APPC28)	0A17,LTPT138,CR82A,(B10C507F4	.000	-14.250	.000	.000	LREF 19.9245 INCHES
(APPC29)	DATA NOT AVAILABLE	.000	-14.250	54.920	.000	BREF 14.0502 INCHES
(APPC30)	DATA NOT AVAILABLE	.000	-14.250	84.920	.000	XMRP 13.1469 INCHES
						ZMRP .0000 INCHES
						SCALE 6.0150
						SCALE

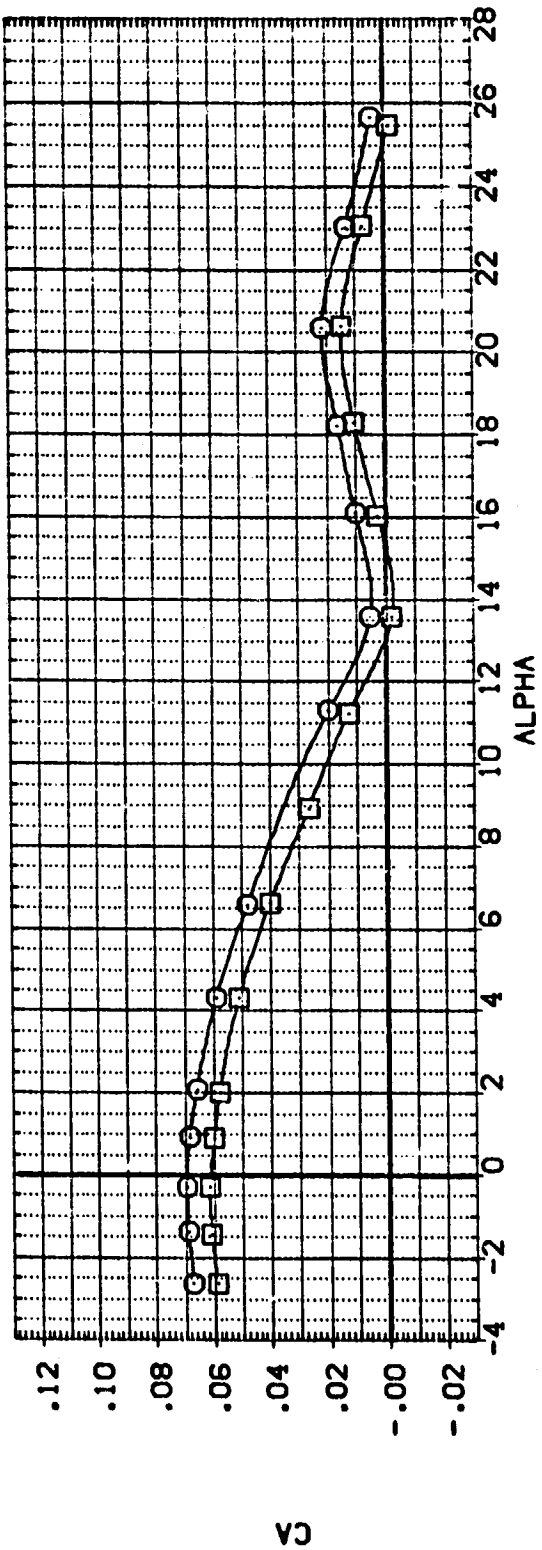
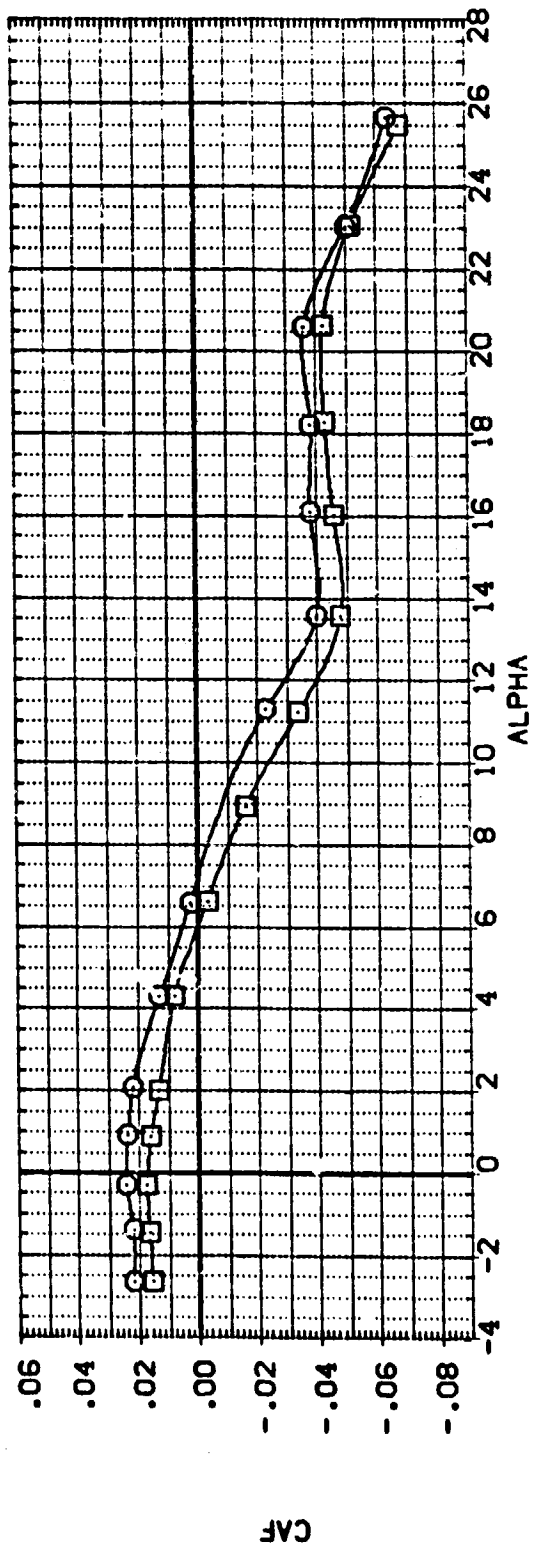


FIGURE 26 089B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 12.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOF LAP	SPOBRK	RJODER	REFERENCE INFORMATION
AB00271	CA17.1TPT138:CB82A.(B10CSC07F4	.000	-14.250	24.920	.000	SREF 87.1560
AB00272	CA17.1TPT138:CB82A.(B10CSC07F4	.000	-14.250	24.920	.000	LREF 19.9245
AB00273	CA17.1TPT138:CB82A.(B10CSC07F4	.000	-14.250	24.920	.000	BREF 1.0502
AB00274	DATA NOT AVAILABLE	.000	-14.250	24.920	.000	XTRP 13.1463
AB00275	DATA NOT AVAILABLE	.000	-14.250	24.920	.000	YTRP .0000
						ZTRP .0000
						SCALE .0150

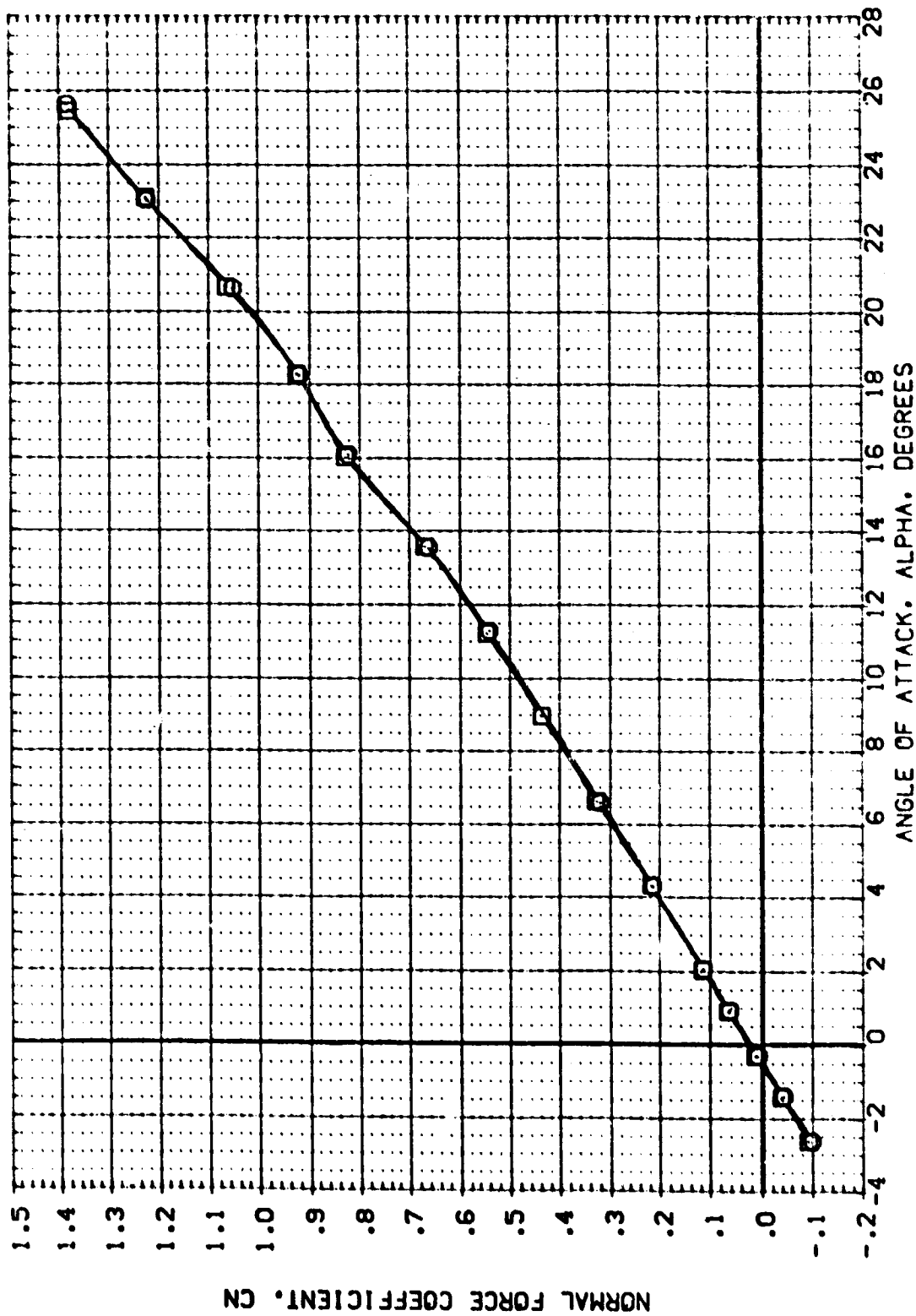


FIGURE 26 0898 ORBITER SPEED BRAKE DEFLECTION EFFECTS

CAJRN/L = 12.50

DATA SET SYMBOL
 (APPC27)
 (APPC26)
 (APPC23)
 (APPC41)

CONFIGURATION DESCRIPTION
 DA17.LTPT138.DRB2A.(B10C507F4
 DA17.LTPT138.DRB2A.(B10C507F4
 DATA NOT AVAILABLE
 DATA NOT AVAILABLE

ELEVTR BOFLAP SPDBRK RUDDER
 .000 -14.250 24.920 .000
 .000 -14.250 54.920 .000
 .000 -14.250 84.920 .000

M31(V87E18)(V89S)
 M31(V87E18)(V89S)

PITCHING MOMENT COEFFICIENT ABOUT FORWARD C.G., CLMFWO

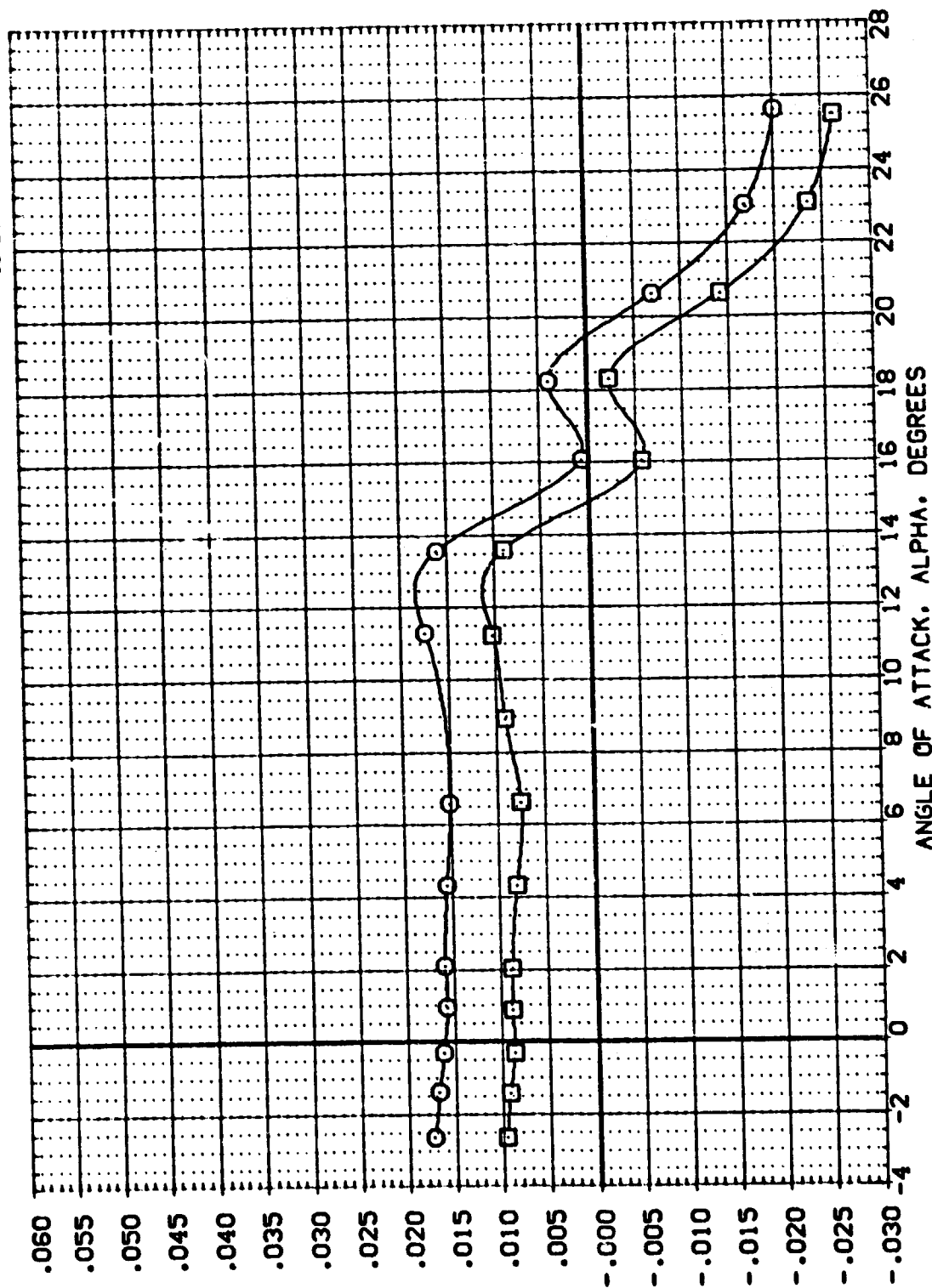
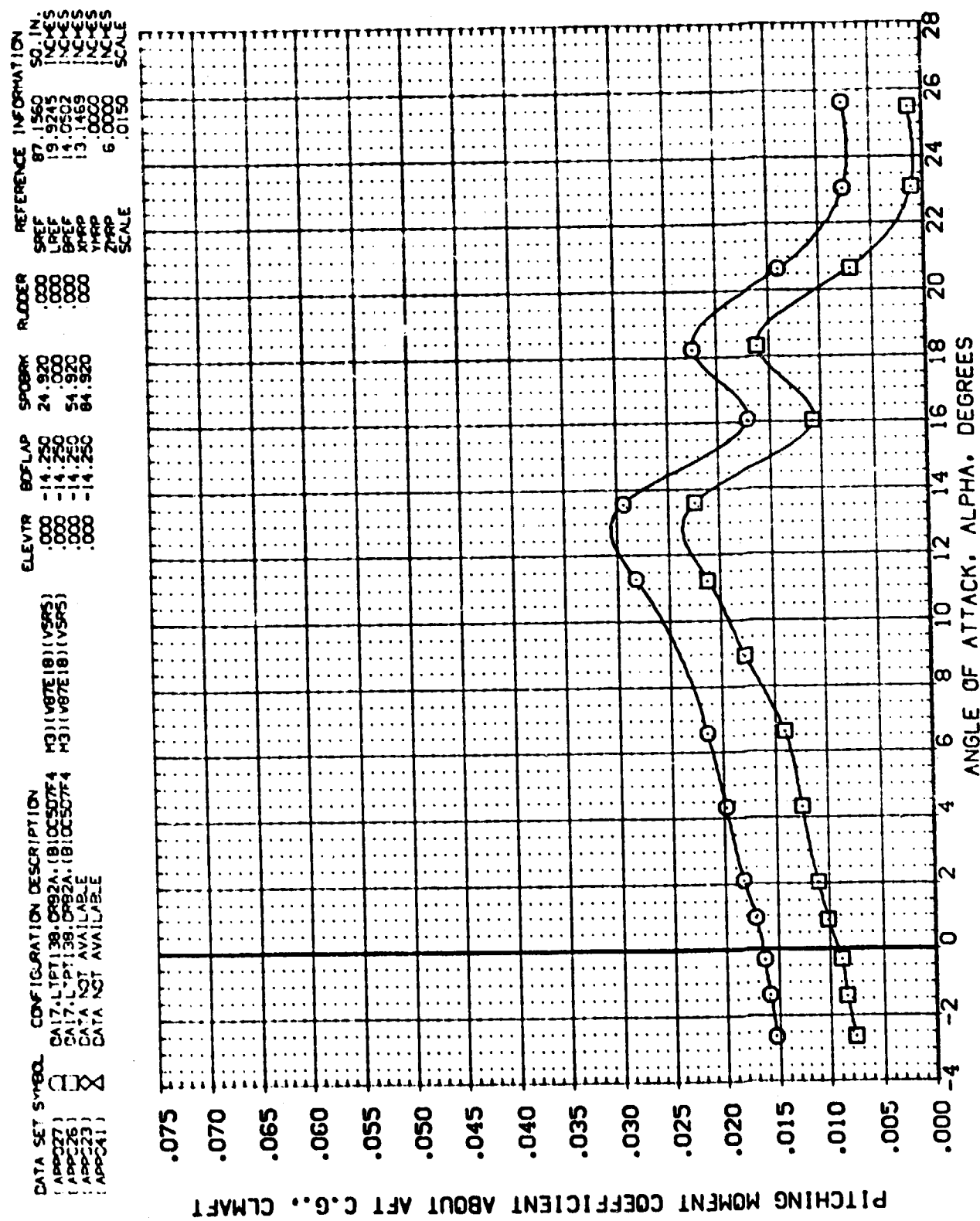


FIGURE 26 089B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 12.50



DATA SET SYMBOL: \square \circ

CONFIGURATION DESCRIPTION:
 CA17: LPT138: ORB2A: (B10C507F4)
 CA17: LPT138: ORB2A: (B10C507F4)
 DATA NOT AVAILABLE

REFERENCE INFORMATION:
 SREF: 87.1560 SO. IN.
 LREF: 19.9245 IN-ES
 BREF: 14.0502 IN-ES
 XMRP: 13.1469 IN-ES
 YMRP: .0000 IN-ES
 ZMRP: 6.0000 IN-ES
 SCALE: .0150 SCALE

ELEVTR: .000
 BDFLAP: -14.250
 SPOBRK: 24.920
 RUDDER: .000
 SPDRK: 54.920
 RUDDER: .000
 SPDRK: 84.920

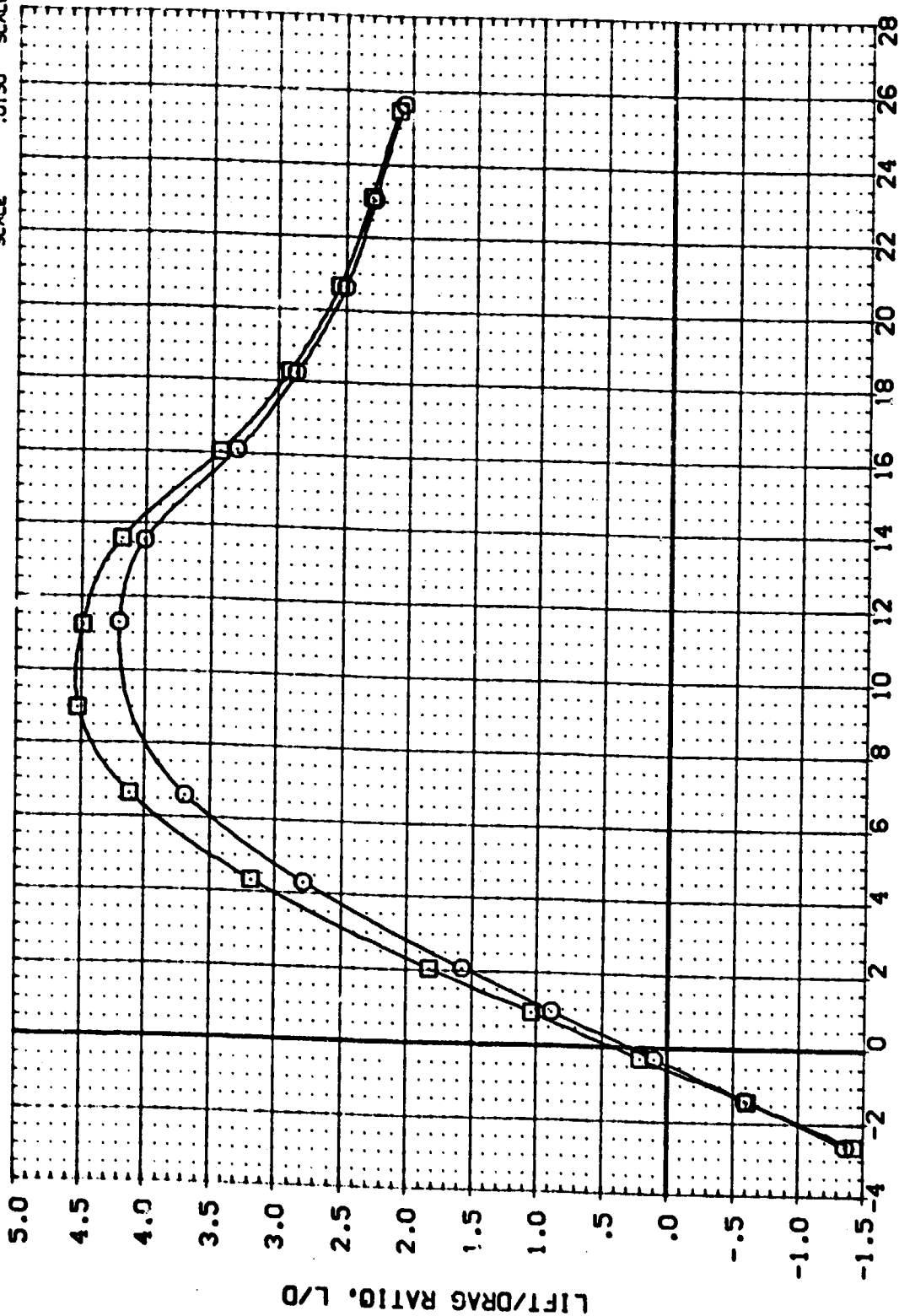


FIGURE 26 0898 ORBITER SPEED BRAKE DEFLECTION EFFECTS
 (A)RN/L = 12.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDBRK	REFERENCE INFORMATION
(APPO27)	DA17.LTPT138:ORB2A:(B1DC507F4	.000	-14.250	24.920	.000	SREF 87.1560 SQ.IN.
(APPO26)	CA17.LTPT138:ORB2A:(B1DC507F4	.000	-14.250	.000	.000	LREF 19.9245 INCHES
(APPO23)	DATA NOT AVAILABLE	.000	-14.250	54.920	.000	BREF 14.0502 INCHES
(APPO41)	DATA NOT AVAILABLE	.000	-14.250	84.920	.000	YPRP 13.1469 INCHES
						ZPRP 6.0000 INCHES
						SCALE .0150 INCHES

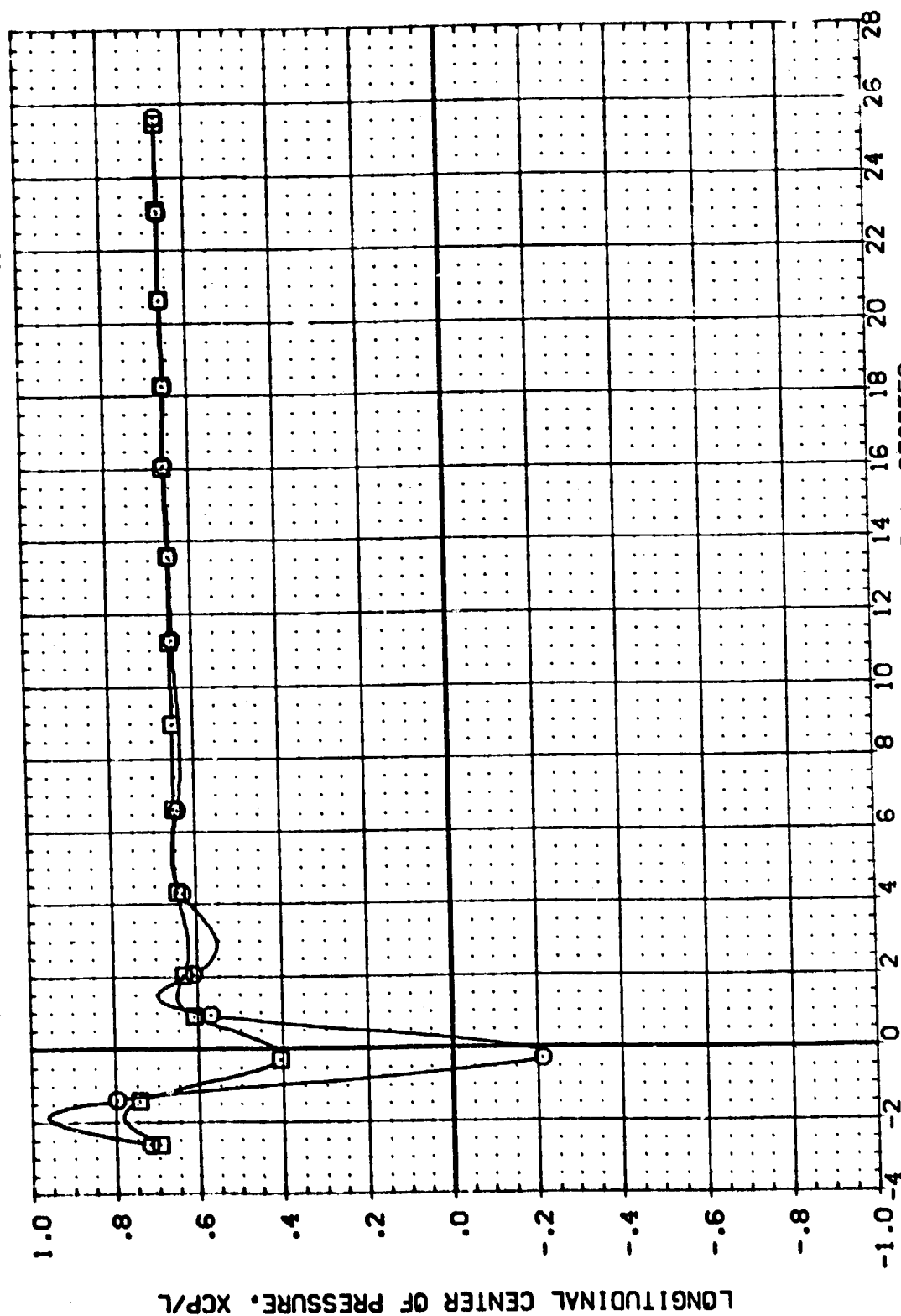


FIGURE 26 089B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 12.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APP27)	CA17.LTPT138.DR82A.(810CS07F4	.000	-14.250	24.920	.000	SREF 87.1560 50. IN.
(APP28)	CA17.LTPT138.DR82A.(810CS07F4	.000	-14.250	.000	.000	LREF 19.9245 INCHES
(APP29)	DATA NOT AVAILABLE	.000	-14.250	54.920	.000	SREF 14.0502 INCHES
(APP30)	DATA NOT AVAILABLE	.000	-14.250	84.920	.000	XTRP 13.1469 INCHES
(APP31)						YTRP 6.0000 INCHES
						ZTRP 6.0000 INCHES
						SCALE .0150

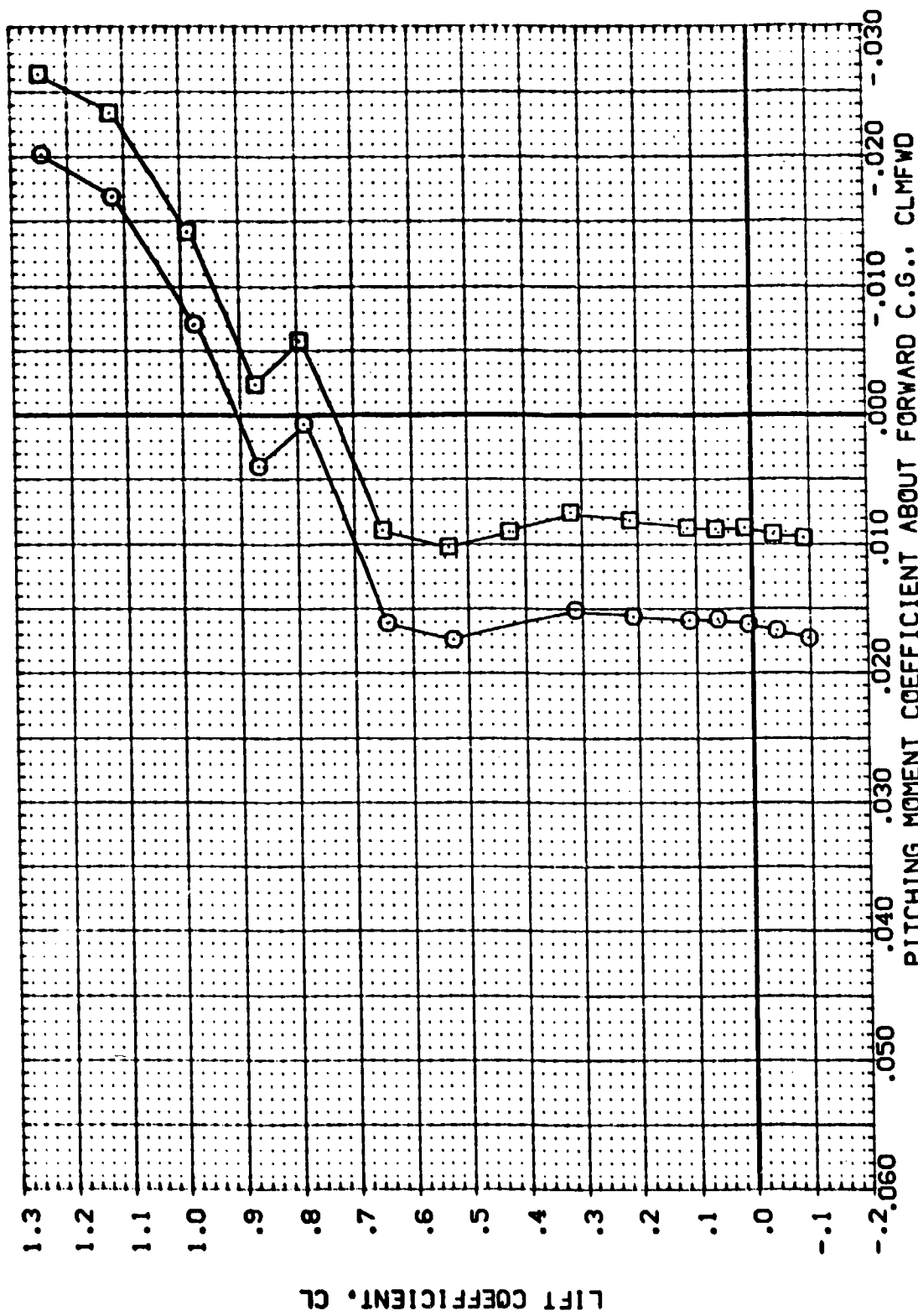


FIGURE 26 0898 ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A)RN/L = 12.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	M3(V87E18)(V87S)	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
APPC27	CA17.L1PT138.C282A.181DC507F4	M3(V87E18)(V87S)	.000	-14.250	24.920	.000	SREF 87.1560 50.1N
APPC26	CA17.L1PT138.C282A.181DC507F4	M3(V87E18)(V87S)	.000	-14.250	.000	.000	LREF 19.9245 INCHES
APPC23	DATA NOT AVAILABLE		.000	-14.250	54.920	.000	BREF 14.0502 INCHES
APPC41	DATA NOT AVAILABLE		.000	-14.250	84.920	.000	XMRP 13.1469 INCHES
							YMRP .0000 INCHES
							ZMRP 6.0000 INCHES
							SCALE .0150

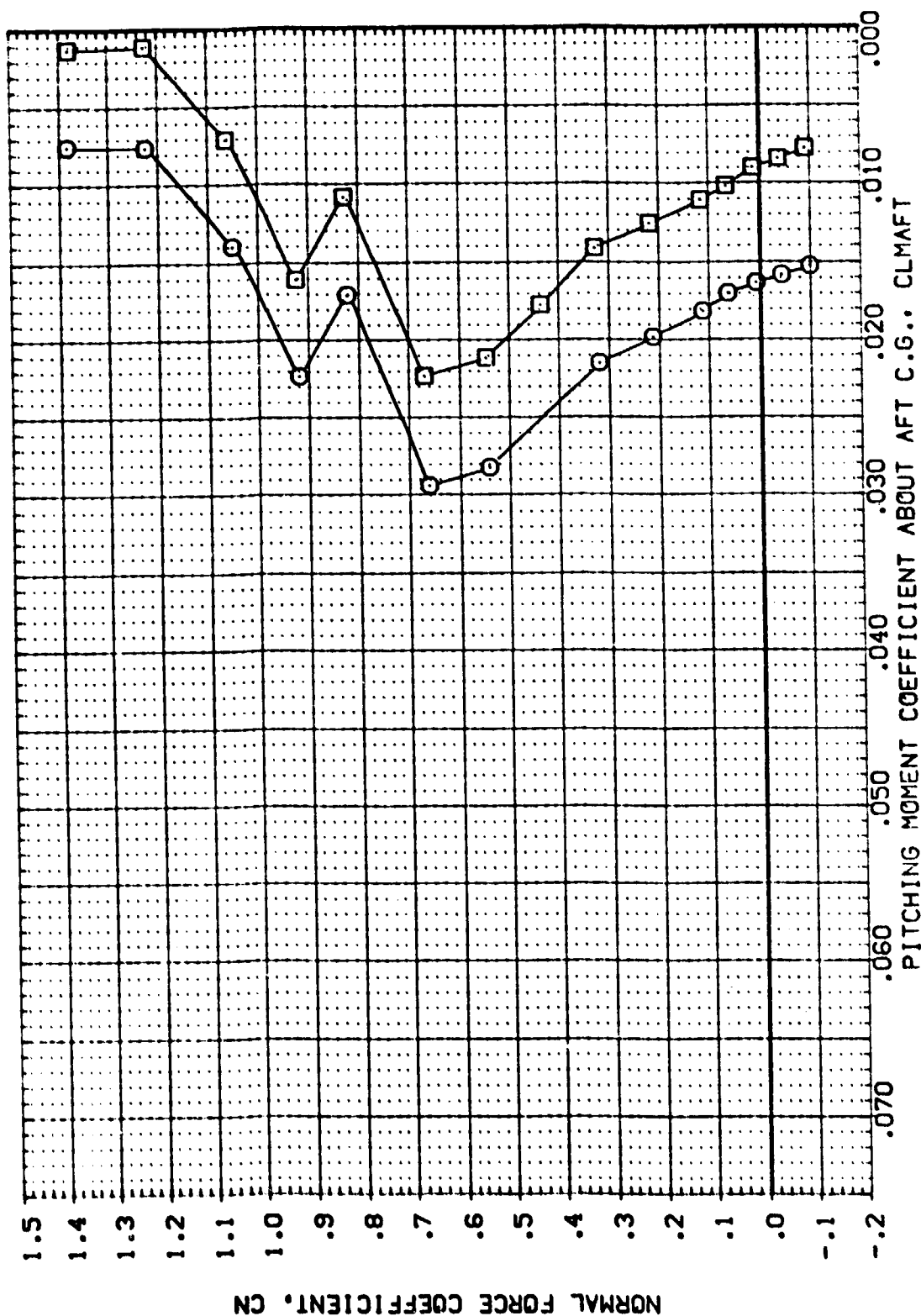


FIGURE 26 089B ORBITER SPEED BRAKE DEFLECTION EFFECTS

(AJRN/L = 12.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(APPQ27)	CA17.LTPT138.0882A.(B10CS07F4	.000	-14.250	24.920	.000	SREF 87.1560 50. IN.
(APPQ26)	CA17.LTPT138.0882A.(B10CS07F4	.000	-14.250	24.920	.000	LREF 19.9245 INCHES
(APPQ23)	DATA NOT AVAILABLE	.000	-14.250	54.920	.000	BREF 14.0502 INCHES
(APPQ41)	DATA NOT AVAILABLE	.000	-14.250	64.920	.000	XREF 13.1469 INCHES
						YREF 6.0000 INCHES
						ZREF 6.0000 INCHES
						SCALE .0150 SCALE

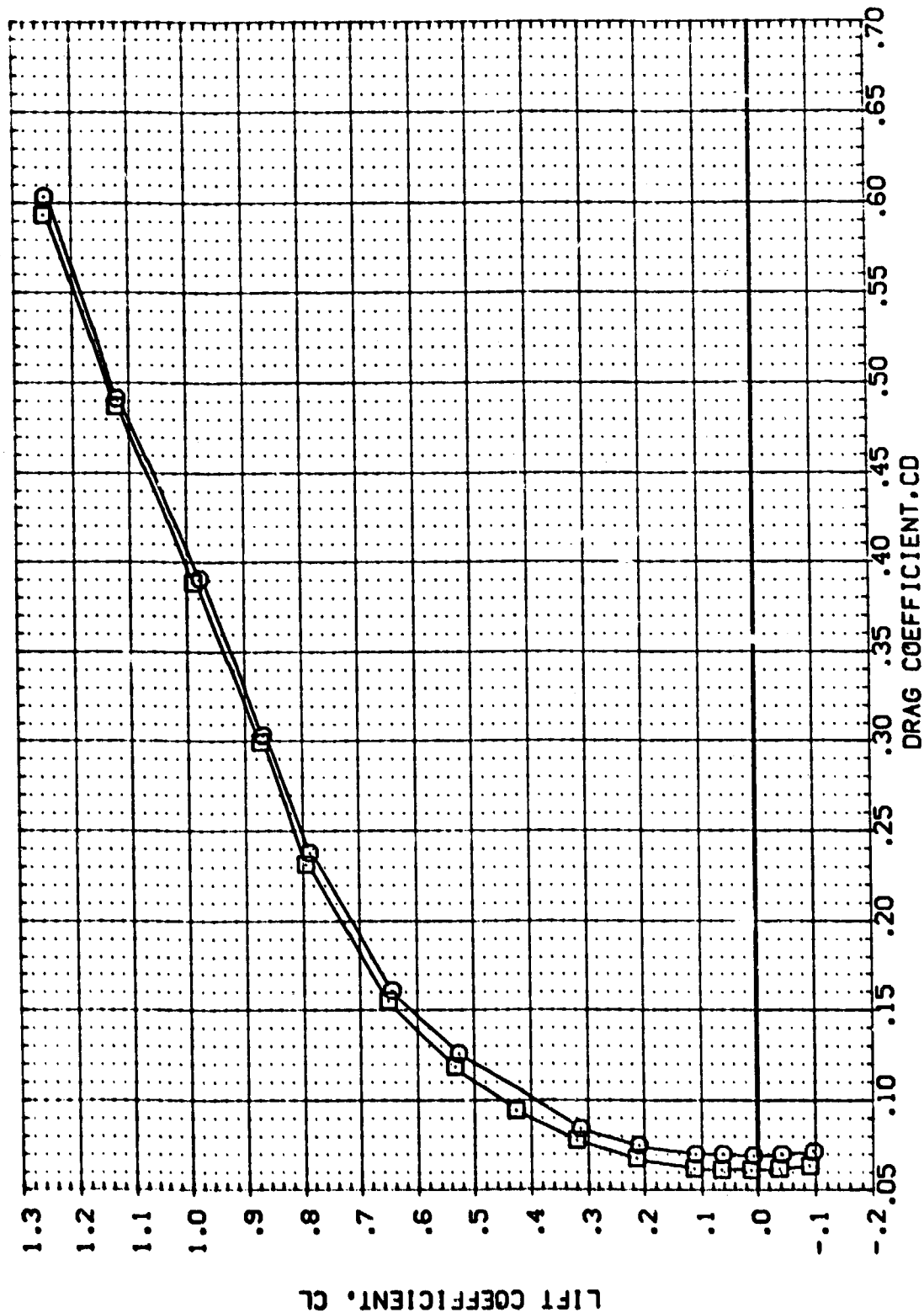


FIGURE 26 0898 ORBITER SPEED BRAKE DEFLECTION EFFECTS

(A) RN/L = 12.50

DATA SET SYMBOL: 017, LTPT138, ORB2A, (B10C507F4) M31(V87E18)(VSR5) D5P89K RUDER ELEVON BOFLAP REFERENCE INFORMATION

DATA NOT AVAILABLE DATA NOT AVAILABLE -24.920 .000 -14.250 SREF 87.1560 50. IN.

DATA NOT AVAILABLE DATA NOT AVAILABLE 30.000 .000 -14.250 LREF 19.9245 INCHES

DATA NOT AVAILABLE DATA NOT AVAILABLE 60.000 .000 -14.250 BREF 14.0502 INCHES

DATA NOT AVAILABLE DATA NOT AVAILABLE XMRP 13.1459 INCHES

DATA NOT AVAILABLE DATA NOT AVAILABLE YMRP .0000 INCHES

DATA NOT AVAILABLE DATA NOT AVAILABLE ZMRP .0000 INCHES

DATA NOT AVAILABLE DATA NOT AVAILABLE SCALE .0150 SCALE

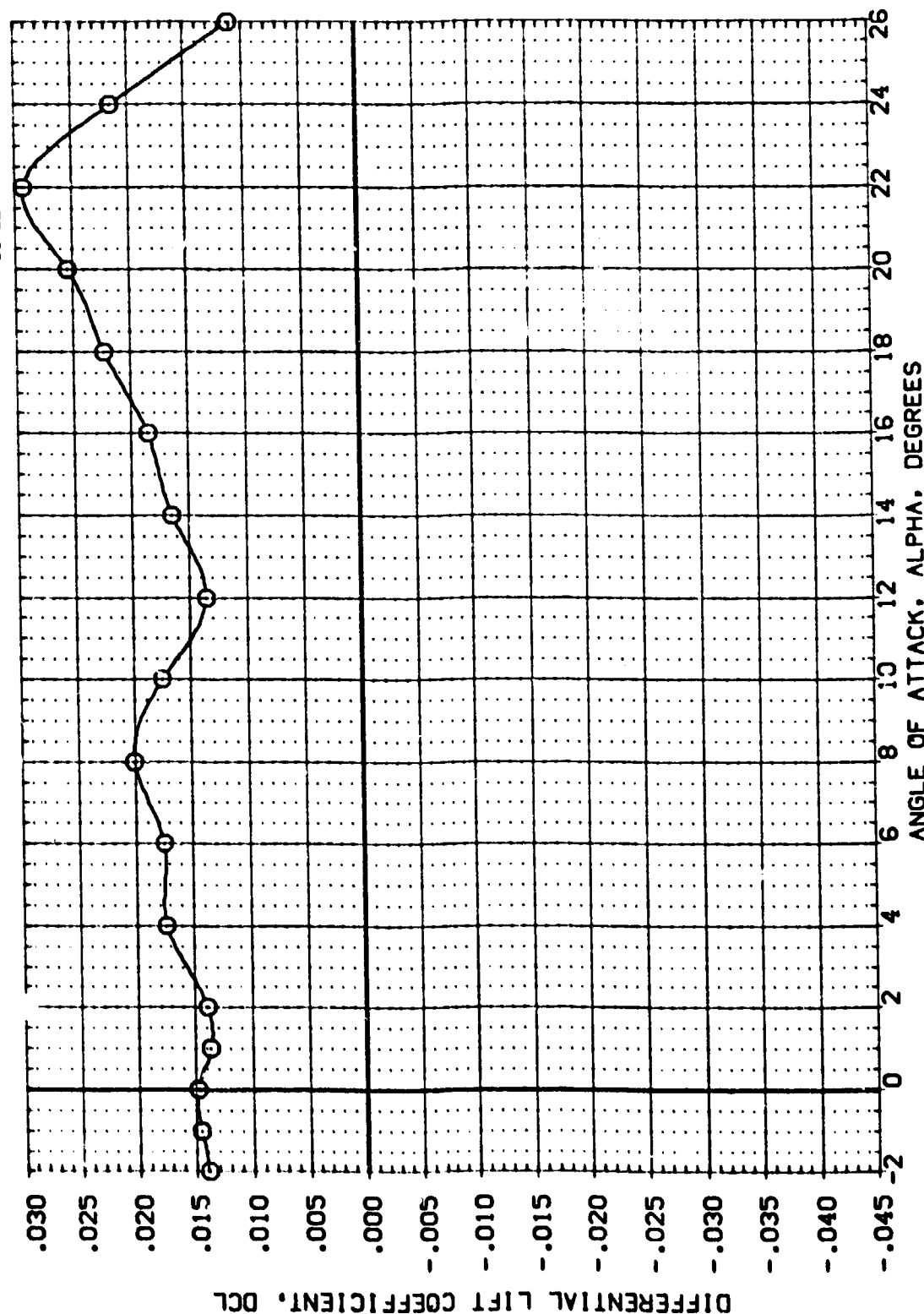


FIGURE 27 0898 ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 2.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DSPBRK	RUDDER	ELEVON	BOFLAP	REFERENCE INFORMATION
(APP026)	0417.LTPT138.DR2A.(B10C507F4	-24.920	.000	.000	-14.250	SREF 87.1560
(APP023)	DATA NOT AVAILABLE	30.000	.000	.000	-14.250	LREF 19.9245
(APP041)	DATA NOT AVAILABLE	60.000	.000	.000		BREF 14.0502
						XMRP 13.1469
						YMRP .0000
						ZMRP .0000
						SCALE .0150

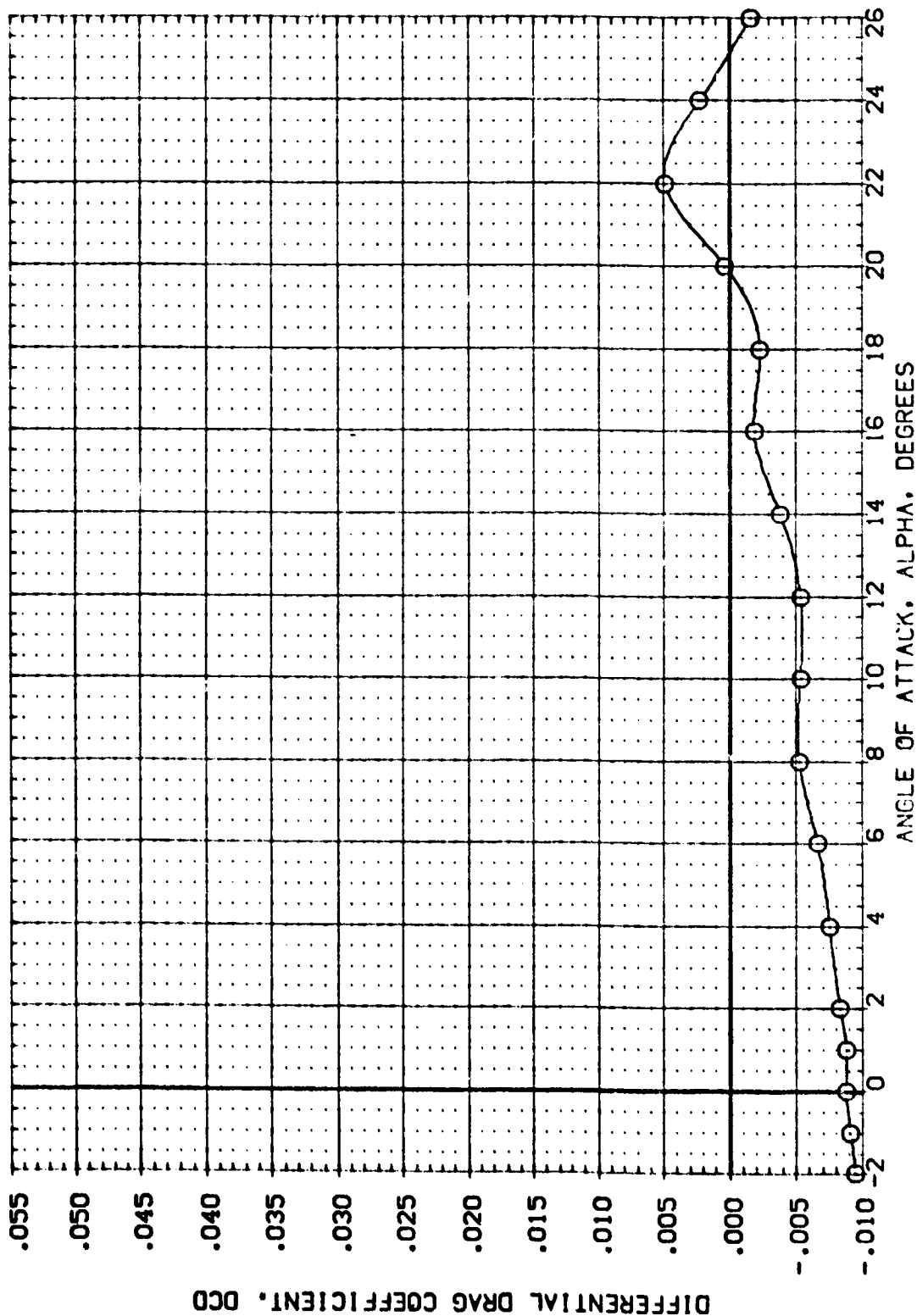


FIGURE 27 0898 ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 2.50

DATA SET SYMBOL: (MPP226) (MPP223) (MPP241)

CONFIGURATION DESCRIPTION: 0A17.LTPT138.082A.(B10CS07F4) M31(V87E18)(VSR5)

DATA NOT AVAILABLE

DATA NOT AVAILABLE

DSBRK: -24.920 30.000 60.000

RUDER: .000 .000 .000

ELEVON: .000 .000 .000

BDFLAP: -14.250 -14.250 -14.250

REFERENCE INFORMATION:

SREF	87.1560	50. IN.
LREF	19.9245	INCH.
BREF	14.0502	INCH.
YMRP	13.1469	INCH.
ZMRP	.0000	INCH.
SCALE	6.0000	INCHES
	.0150	INCHES

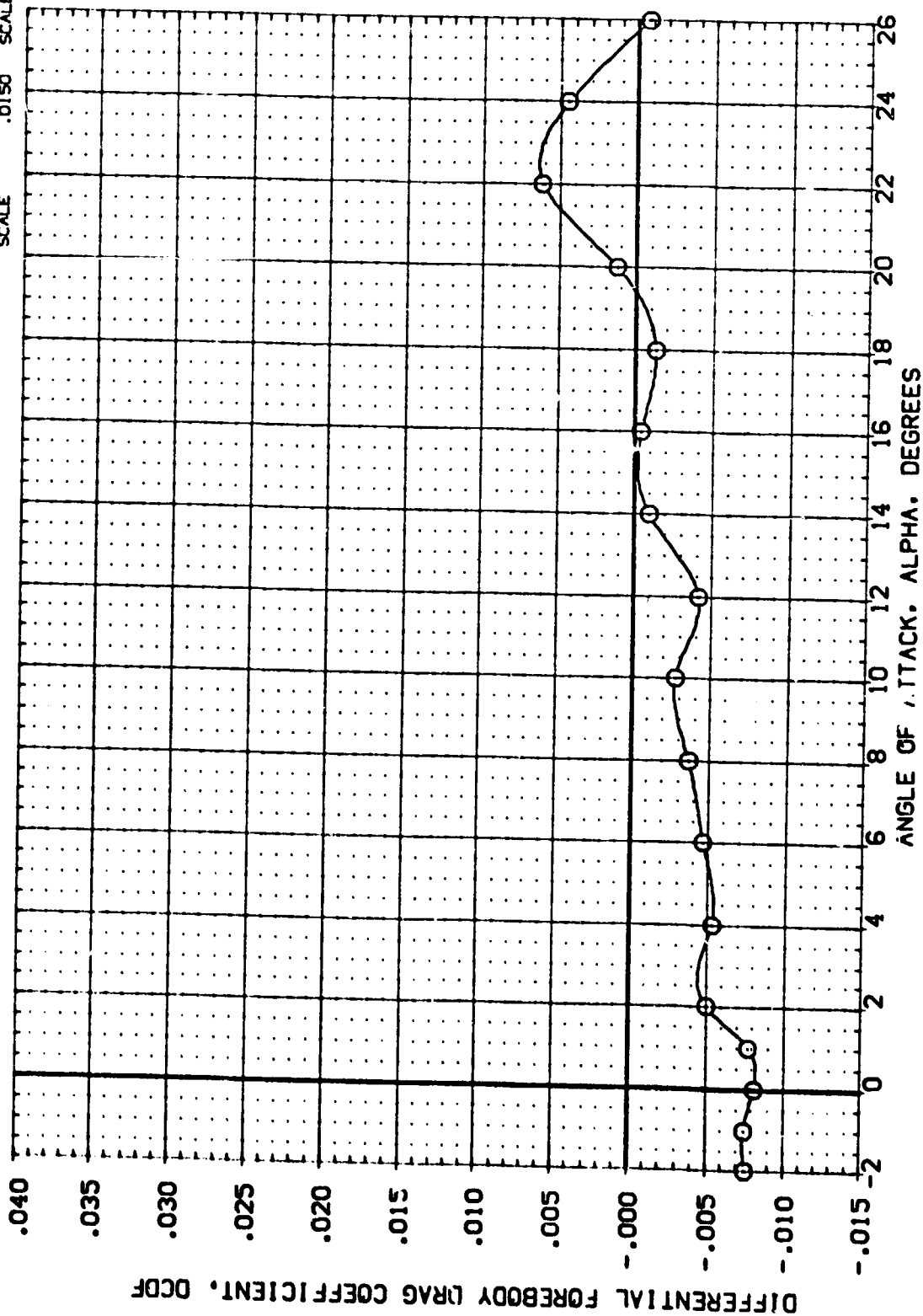


FIGURE 27 089B ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DSPBRK	RUDDER	ELEVON	BDFLAP	REFERENCE INFORMATION
(40026)	CA17.1PT138.0RB2A.(B10C507F4	-24.920	.000	.000	-14.250	SREF 87.1560
(40023)	DATA NOT AVAILABLE	30.000	.000	.000	-14.250	LREF 19.9245
(40024)	DATA NOT AVAILABLE	60.000	.000	.000	-14.250	BREF 14.0502
						XTRP 13.1469
						YMRP .0000
						ZMRP .0000
						SCALE 6.0000
						SCALE .0150

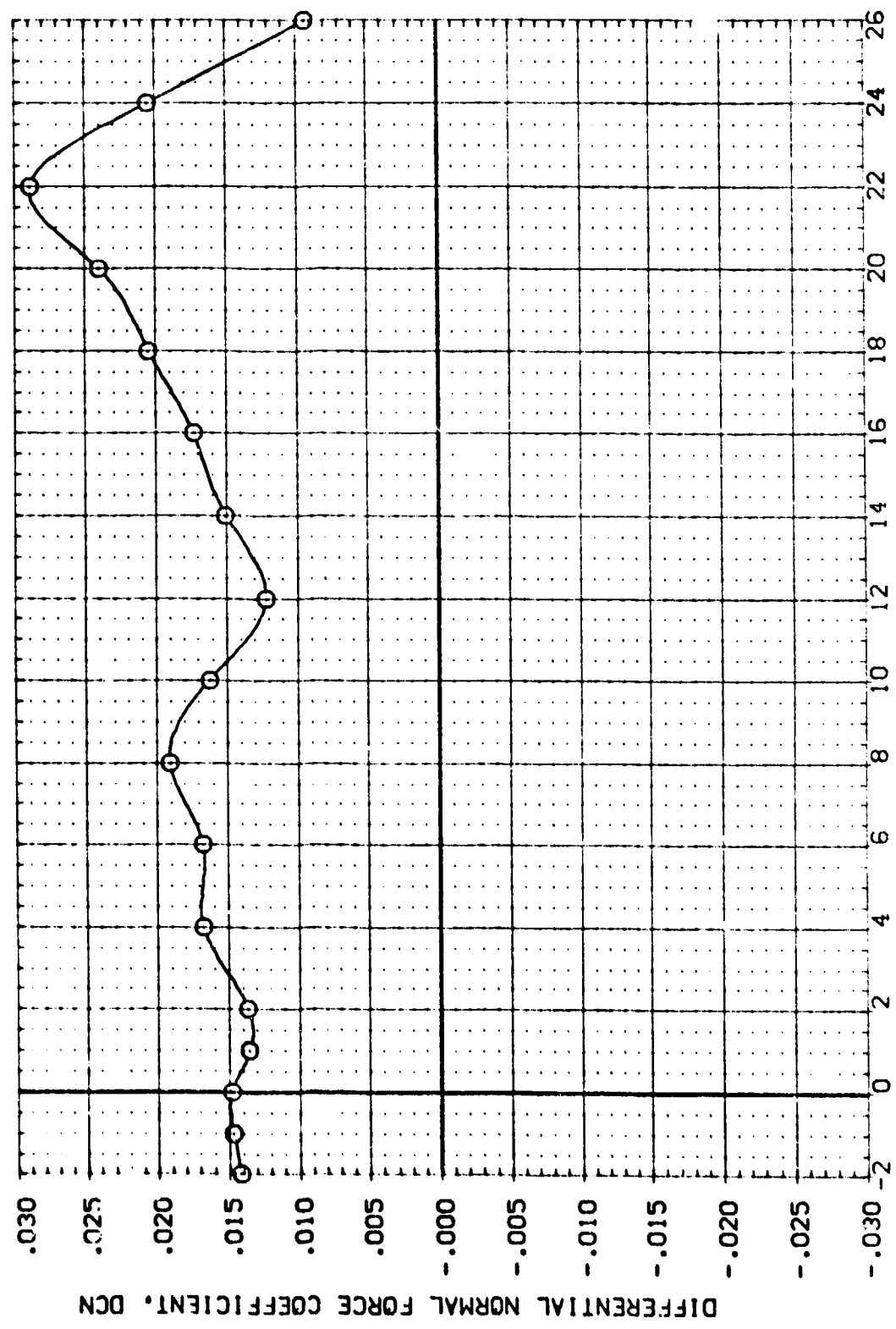


FIGURE 27 089B ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

DATA SET SYMBOL: (APPO26) (APPO23) (APPO41)

CONFIGURATION DESCRIPTION: 0A17,LTPT138,08B2A,(B10C5D7F4 M3)(V87E18)(V5R5)

DATA NOT AVAILABLE

DATA NOT AVAILABLE

DSPBRK RUDDER ELEVON BOFLAP

-24.920 .000 .000 -14.250

30.000 .000 .000 -14.250

60.000 .000 .000 -14.250

REFERENCE INFORMATION

SREF 97.1560 SQ. IN.

LREF 19.9245 INCHES

BREF 14.0502 INCHES

XMRP 13.1469 INCHES

YMRP .0000 INCHES

ZMRP 6.0000 INCHES

SCALE .0150

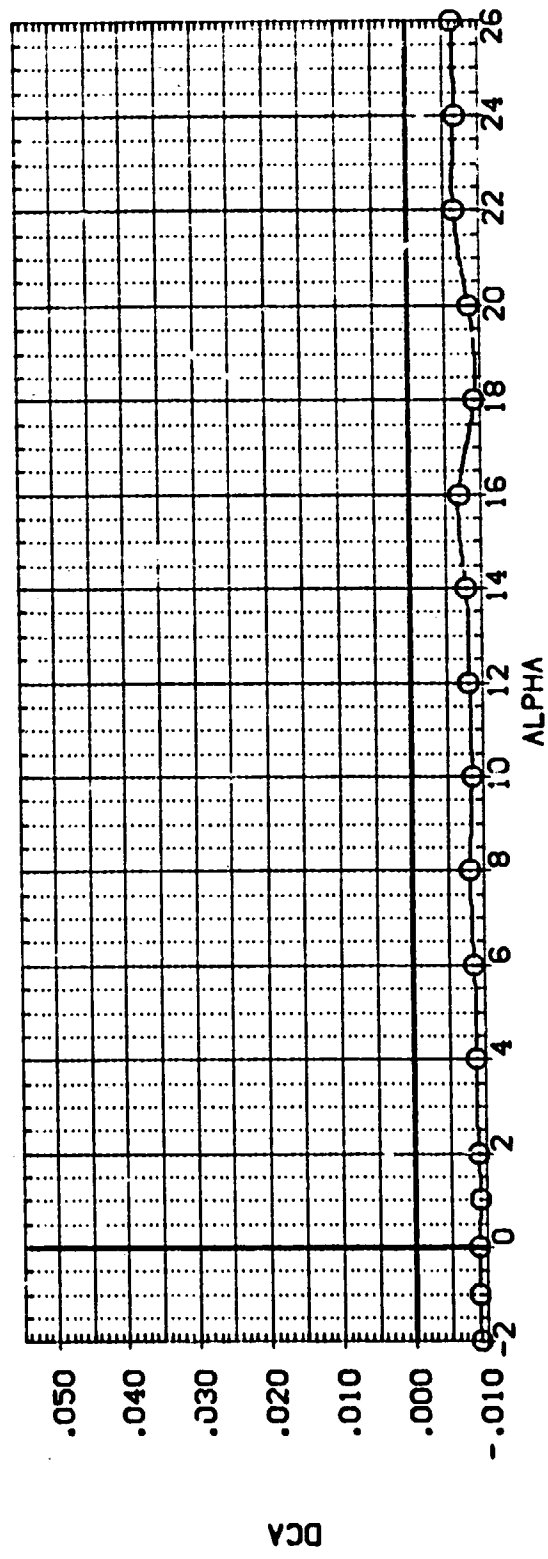
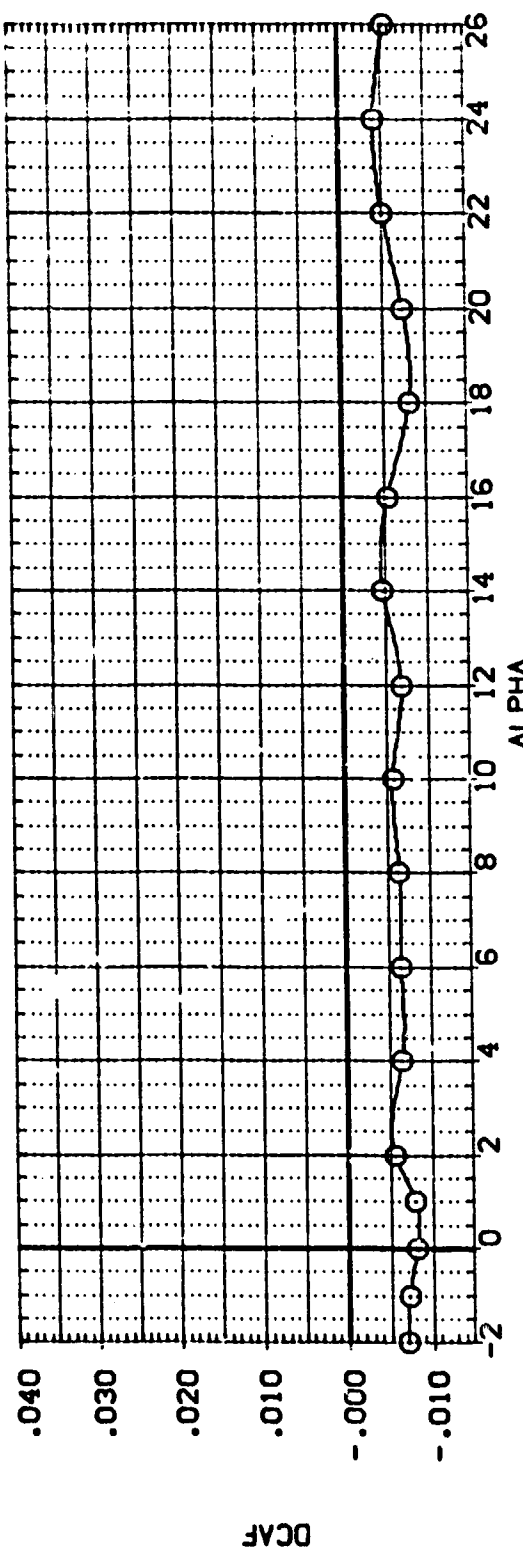


FIGURE 27 089B ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(AJRN/L = 2.50

DATA SET SYMBOL: 0898
 CONFIGURATION DESCRIPTION: DA17,LTPT138,0892A,(B10C507F4
 DATA NOT AVAILABLE
 DATA NOT AVAILABLE
 DATA NOT AVAILABLE

DS98K: -24.920
 RUDDER: .000
 ELEVON: .000
 BOFLAP: -14.250

REFERENCE INFORMATION:
 SREF: 87.1550
 LREF: 19.9245
 BREF: 14.0502
 XMRP: 13.1469
 YMRP: .0000
 ZMRP: 6.0000
 SCALE: .0150

DIFFERENTIAL PITCHING MOMENT COEFFICIENT (FORWARD C.G.), DCLMFD

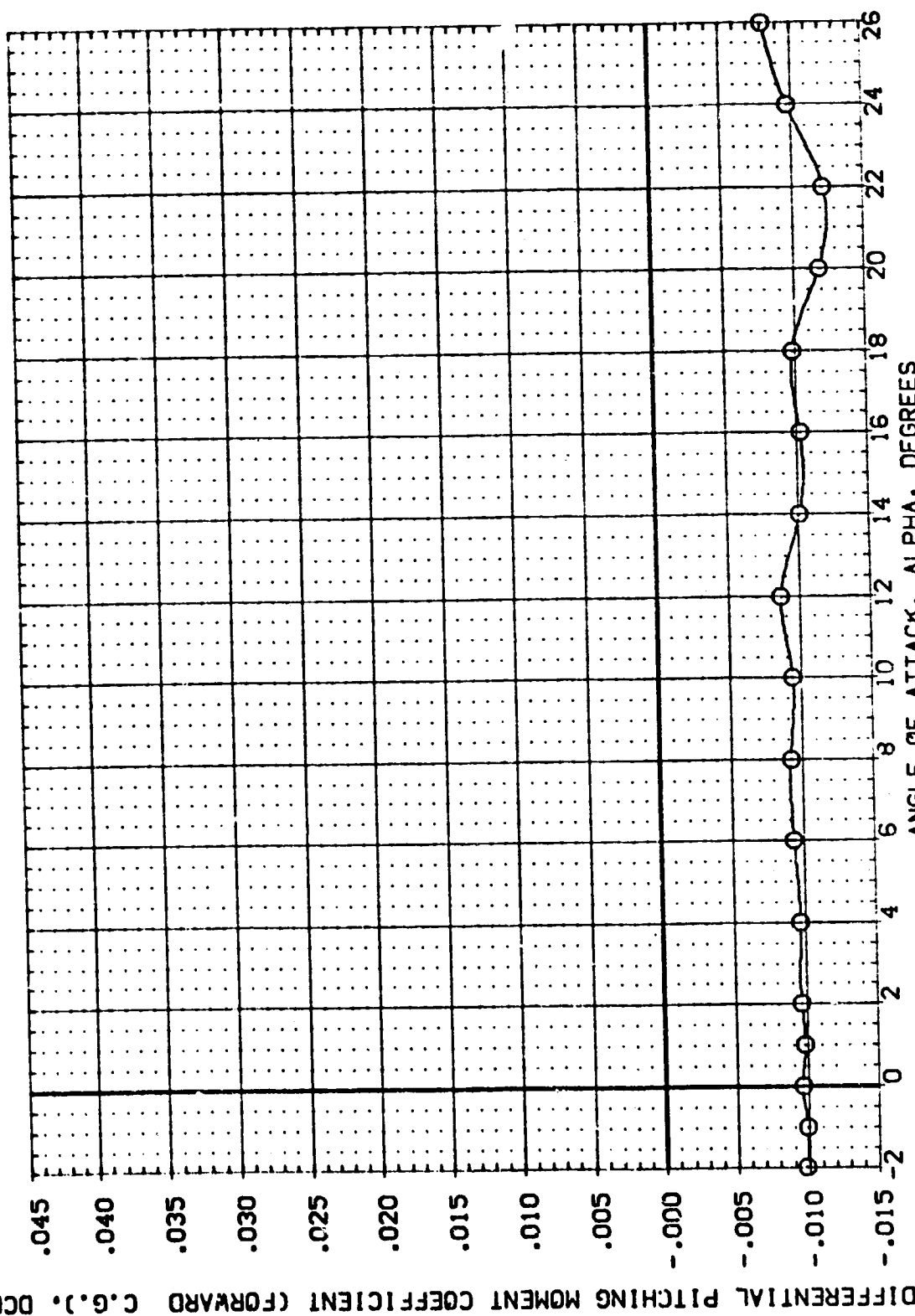
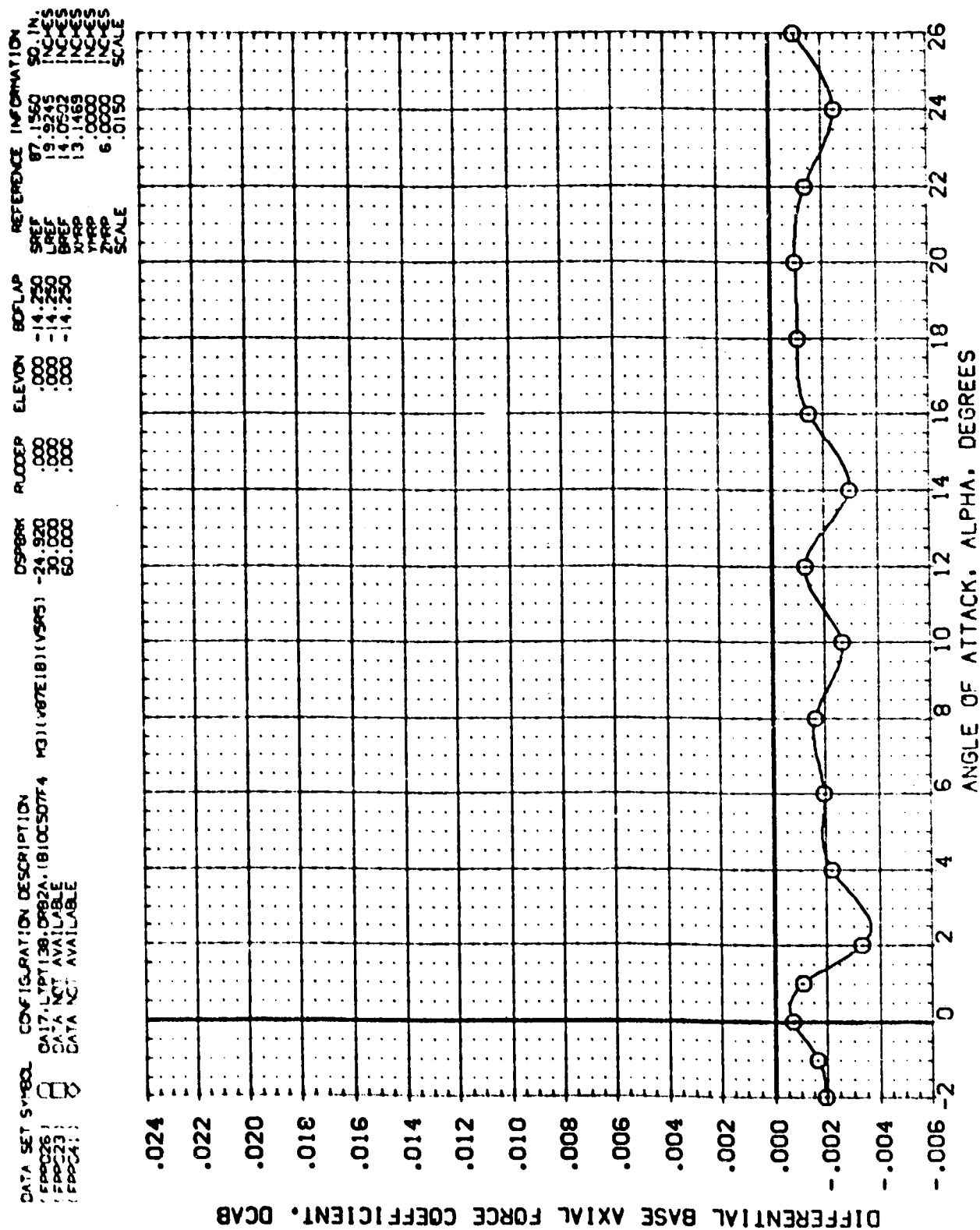


FIGURE 27 0898 ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 2.50



(A) PAV / - = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DSRBRK	RUDDER	ELEVON	BOFLAP	REFERENCE INFORMATION
000236	CA17.L1PT138.0982A.1810C5074	-24.920	.000	.000	-14.250	SREF 87.1560 50. IN.
000237	CA17.L1PT138.0982A.1810C5074	30.000	.000	.000	-14.250	LREF 19.9245 NCLES
000241	CA17.L1PT138.0982A.1810C5074	60.000	.000	.000	-14.250	BREF 14.0502 NCLES
						XMRP 13.1459 NCLES
						YMRP 6.0000 NCLES
						ZMRP 6.0000 NCLES
						SCALE .0150

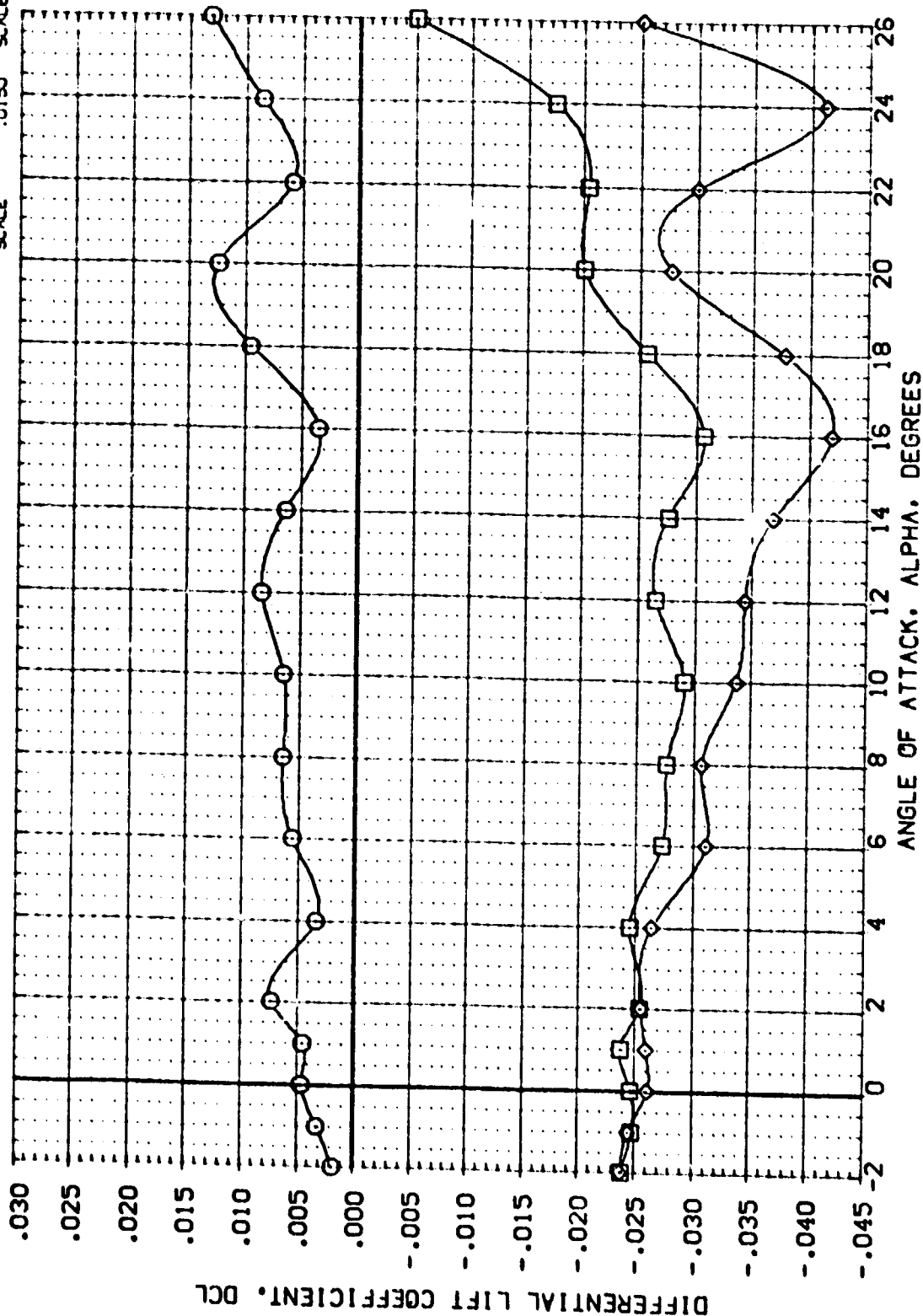


FIGURE 27 089B ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		DS/BPM		RUDDER		ELEVON		BO/LAP		REFERENCE INFORMATION	
(APP026)	CD	CA17ALTPT138:0882A:(810C507F4	M311V87E1811V5RS)	-24.920	.000	.000	-14.250	.000	.000	.000	SREF	87.1560	50. IN.
(APP023)		CA17ALTPT138:0882A:(810C507F4	M311V87E1811V5RS)	30.000	.000	.000	-14.250	.000	.000	.000	LREF	19.9245	INCHES
(APP021)		CA17ALTPT138:0882A:(810C507F4	M311V87E1811V5RS)	60.000	.000	.000		.000	.000	.000	BREF	14.0502	INCHES
											YREF	13.1459	INCHES
											ZREF	6.0000	INCHES
											SCALE	.0150	SCALE

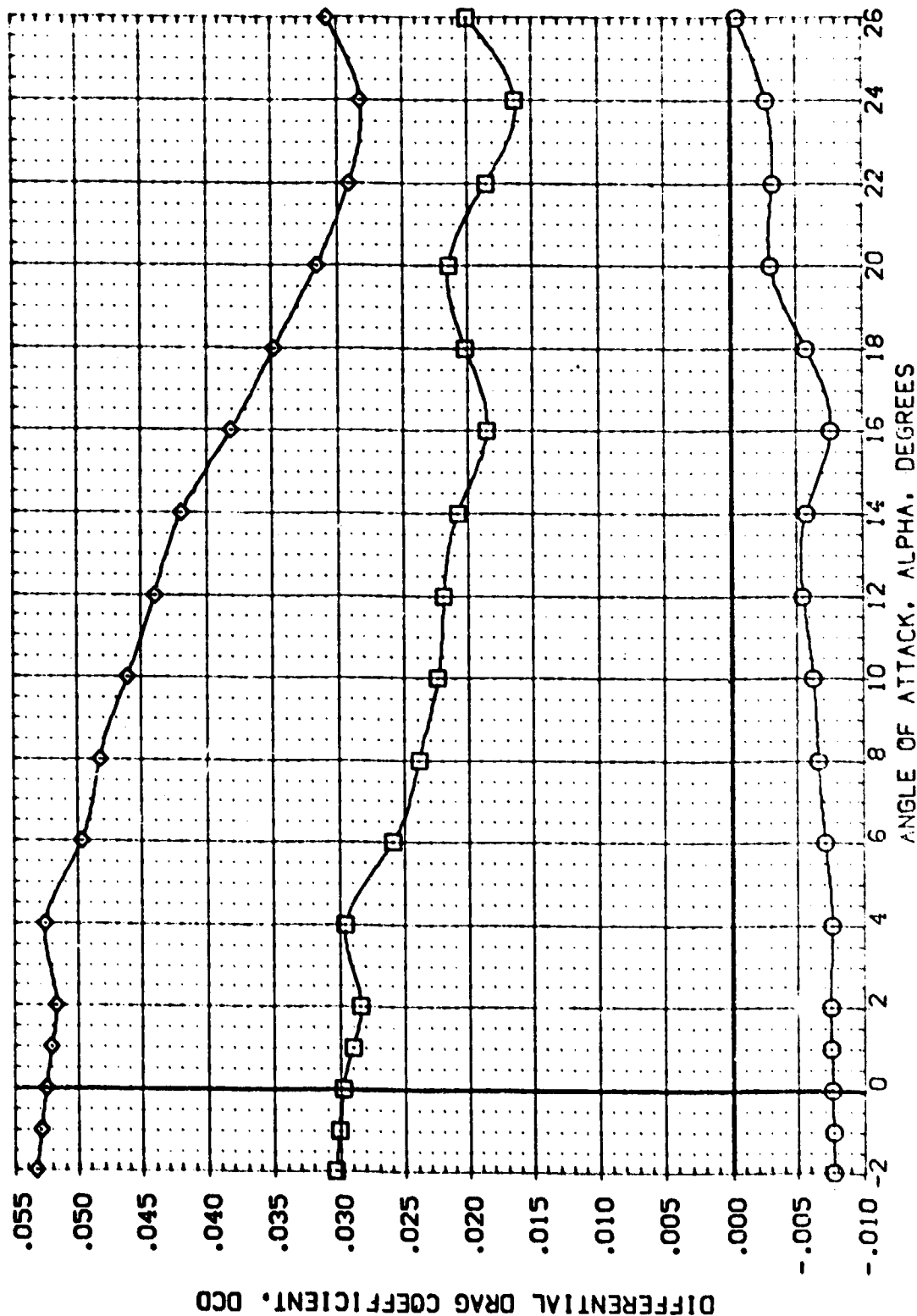


FIGURE 27 089B ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

CA02N/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DSRBR	RUDER	ELEVON	BOFLAP	REFERENCE INFORMATION	SO. IN.
[HPC26]	CA17,LTPT138,CRB2A,(B)OC507F4	M3(187E:8)(VSR5)	.000	.000	-14.250	SREF	87.1560
[HPC23]	CA17,LTPT138,CRB2A,(B)OC507F4	M3(187E:8)(VSR5)	.000	.000	-14.250	LREF	19.9245
[HPC41]	CA17,LTPT138,CRB2A,(B)OC507F4	M3(187E:8)(VSR5)	.000	.000	-14.250	BREF	14.0503
						X-REF	13.1468
						Y-REF	.0000
						Z-REF	.0000
						SCALE	.0150

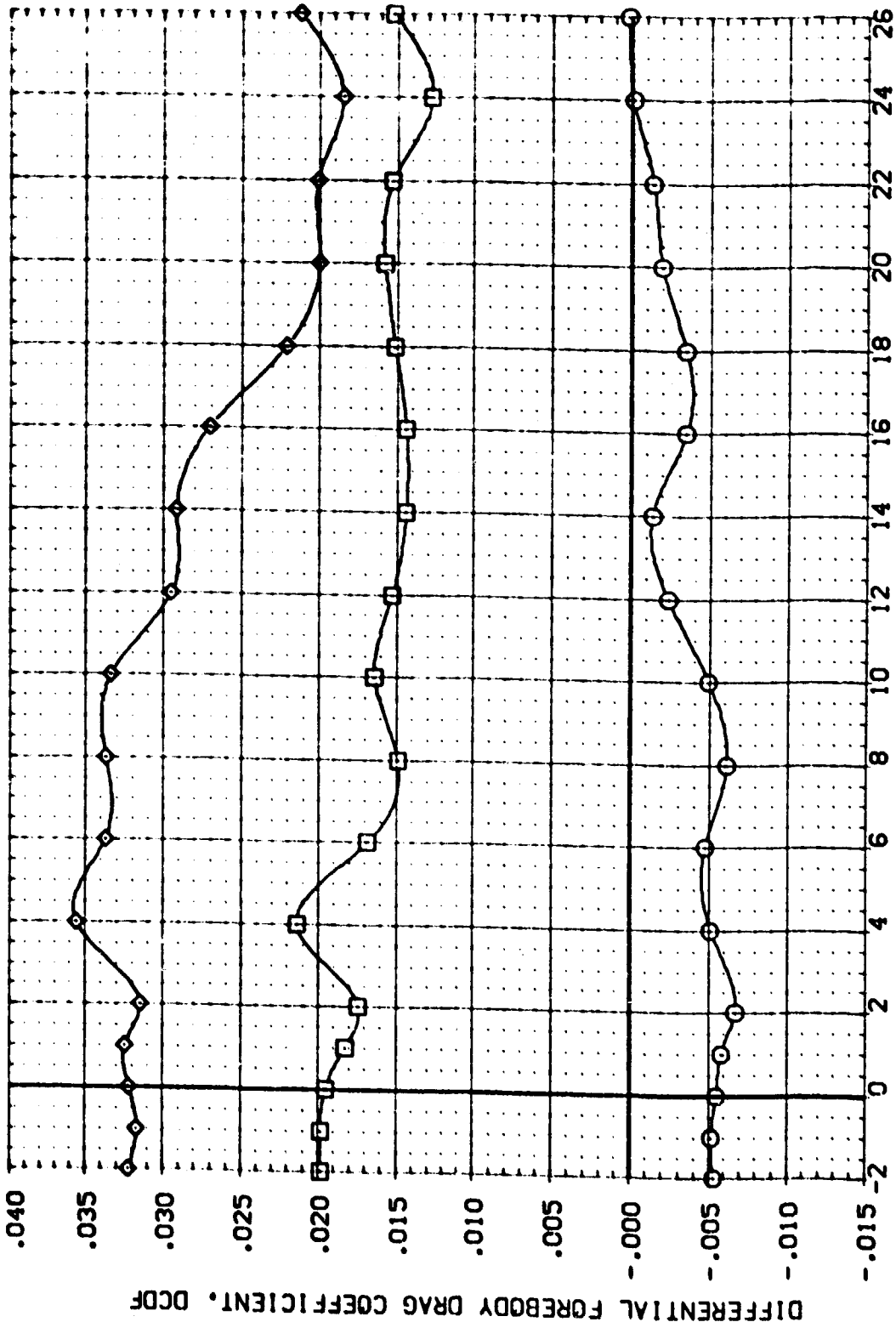


FIGURE 27 089B ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 4.70



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	M3((V87E18)) (V59S)	DSPBRK	RUDER	ELEVON	BOFLAP	REFERENCE INFORMATION
(APP026)	CA17.LTPT138.DR82A.(B10C507F4	M3((V87E18)) (V59S)	-24.920	.000	.000	-14.250	SREF 87.1560 SO IN.
(APP023)	CA17.LTPT138.DR82A.(B10C507F4	M3((V87E18)) (V59S)	30.000	.000	.000	-14.250	LREF 19.9245 INCHES
(APP024)	CA17.LTPT138.DR82A.(B10C507F4	M3((V87E18)) (V59S)	60.000	.000	.000	-14.250	BREF 14.0502 INCHES
							YREF 13.1469 INCHES
							ZREF 6.0000 INCHES
							SCALE .0150

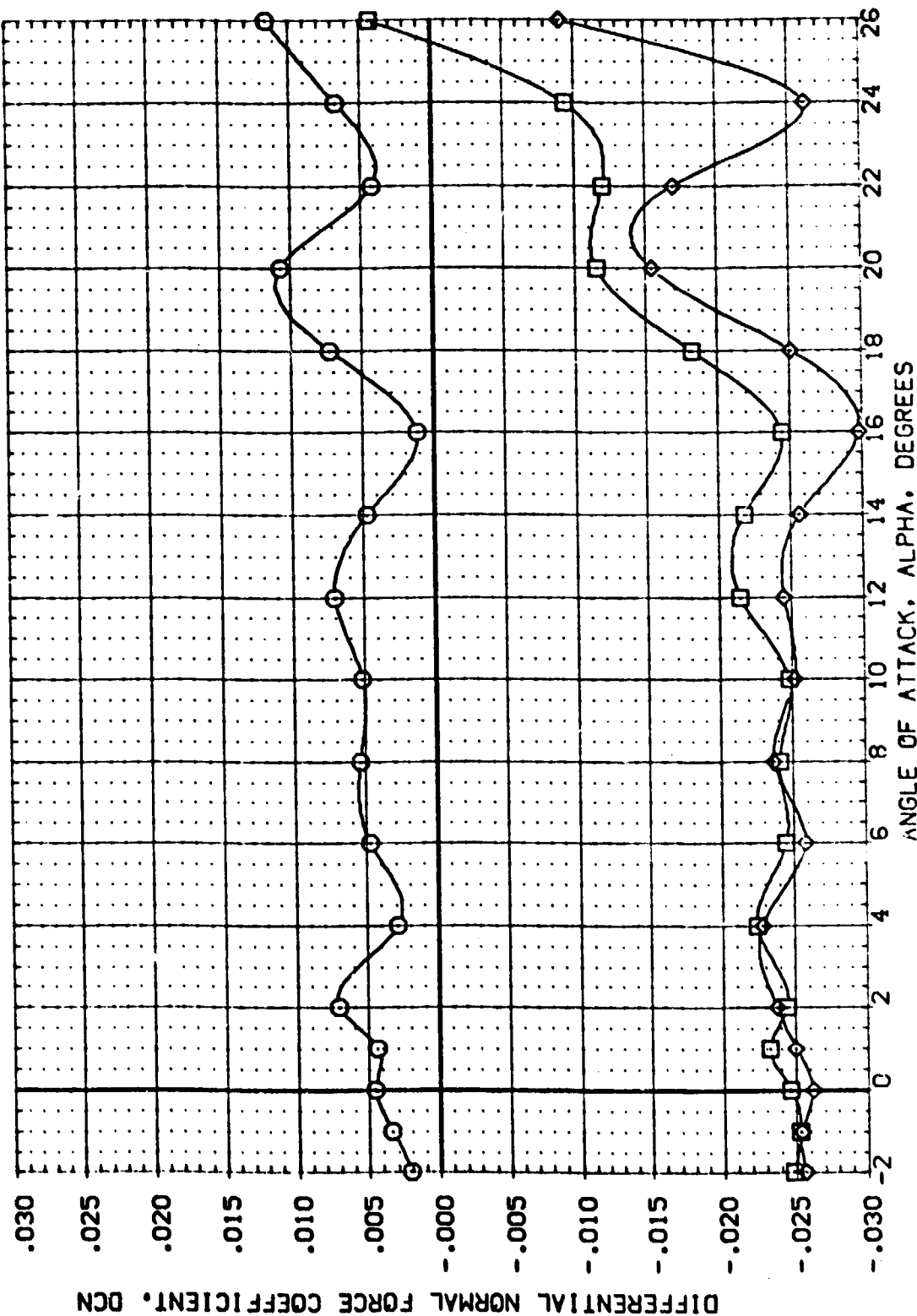


FIGURE 27 0898 ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(AJRN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DS/BK	RUDER	ELEVON	BOFLAP	REFERENCE INFORMATION	
(HPPC26)	CA17.5.TPT138.CS82A.(B10CS07F4	M31(V87E18)(V595)	.000	.000	-14.250	SREF	87.1560
(HPPC23)	CA17.5.TPT138.CS82A.(B10CS07F4	M31(V87E18)(V595)	.000	.000	-14.250	REF	19.9245
(HPPC41)	CA17.5.TPT138.CS82A.(B10CS07F4	M31(V87E18)(V595)	.000	.000	-14.250	SREF	14.0572
						REF	3.1469
						Y-PRP	.0000
						Z-PRP	.0000
						SCALE	.0150

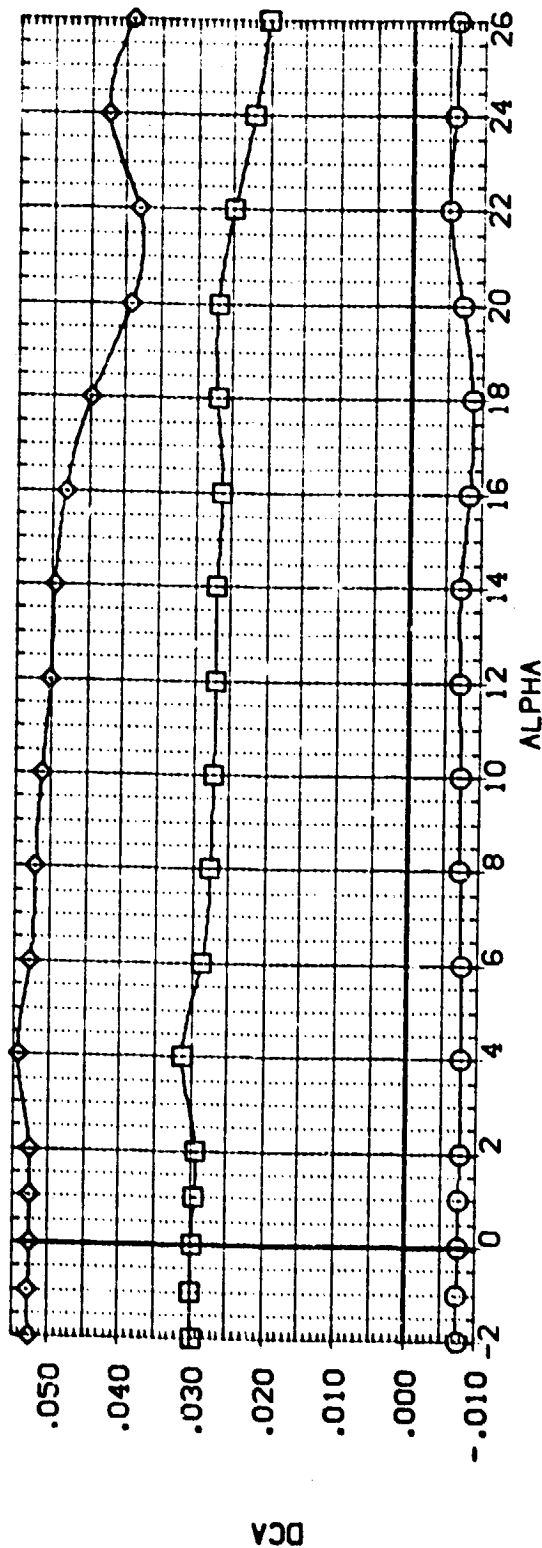
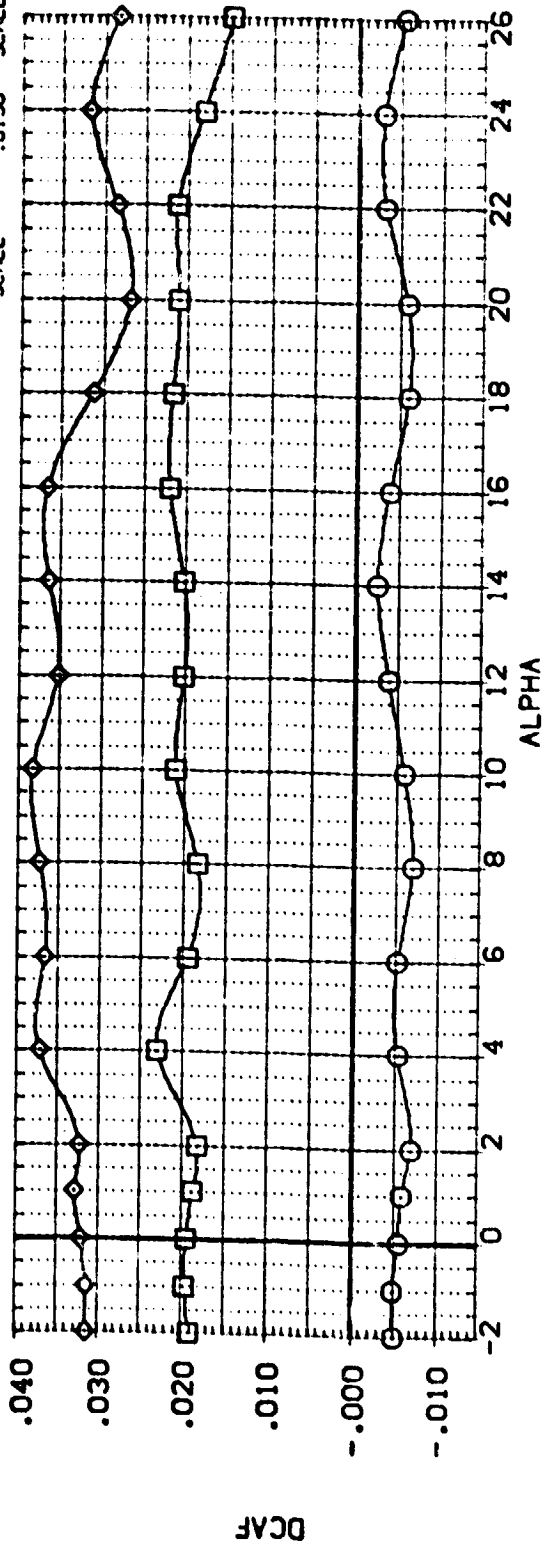


FIGURE 27 0898 ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DSBRK	RUDER	ELEVON	BOFLAP	REFERENCE INFORMATION
(-PP026)	CA17.LTPT138.DR82A.(B10C507F4	M3)(V87E18)(V5R5)	.000	.000	-14.250	SREF 87.1560 SQ. IN.
(-PP023)	CA17.LTPT138.DR82A.(B10C507F4	M3)(V87E18)(V5R5)	.000	.000	-14.250	LREF 19.9245 INCHES
(-PP041)	CA17.LTPT138.DR82A.(B10C507F4	M3)(V87E18)(V5R5)	.000	.000	-14.250	BREF 14.0502 INCHES
						XPRP 13.1469 INCHES
						YPRP .0000 INCHES
						ZPRP 6.0000 INCHES
						SCALE .0150

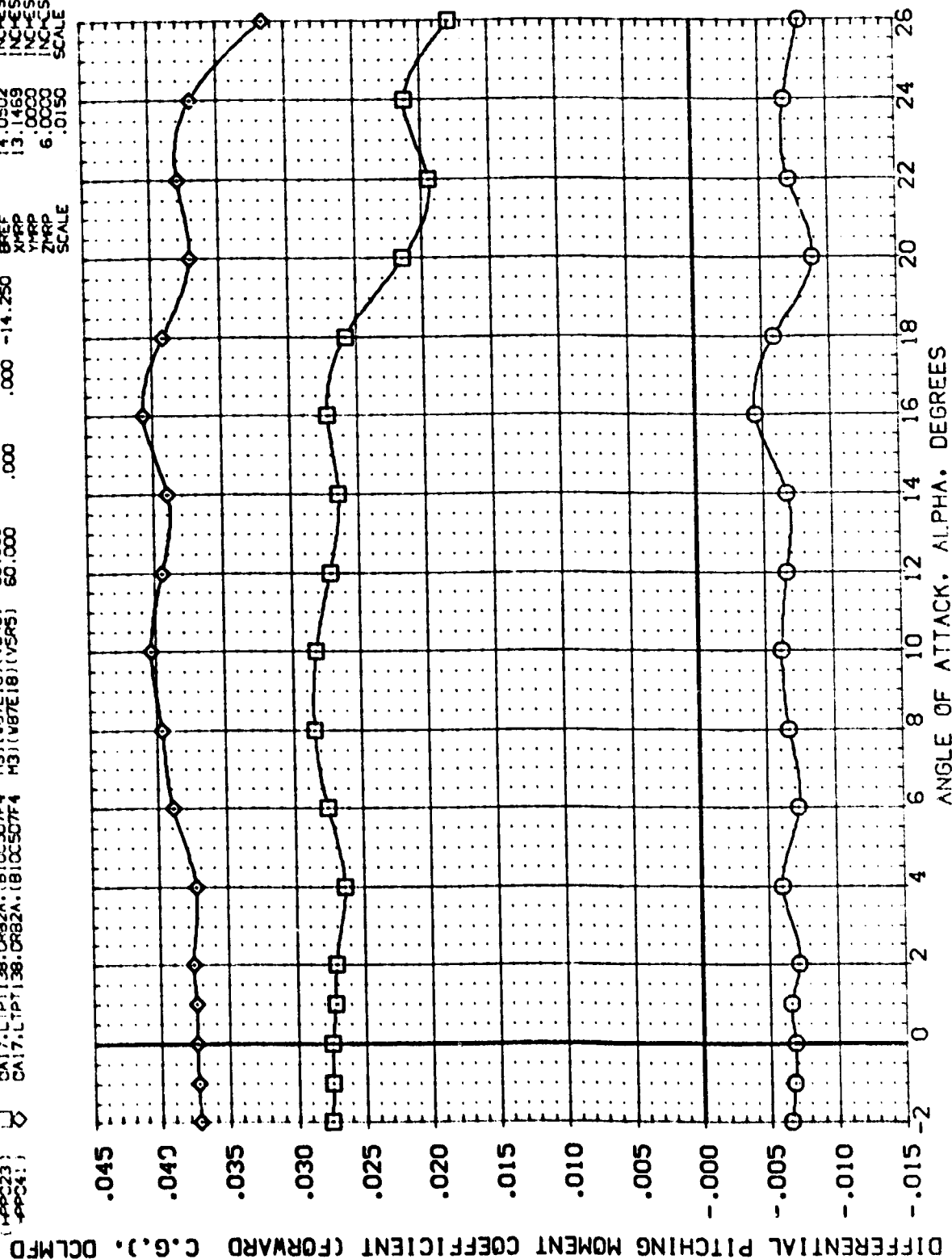


FIGURE 27 089B ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

CADEN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DSFBK	RUDDER	ELEVON	BOFLAP	REFERENCE INFORMATION
(APP026)	CA17.LTPT138.C8B2A.(810C507F4	M3)(V87E18)(V5R5)	-24.920	.000	-14.250	SREF 87.1550 SQ. IN.
(APP023)	CA17.LTPT138.C8B2A.(810C507F4	M3)(V87E18)(V5R5)	30.000	.000	-14.250	LREF 19.9245 INCHES
(APP041)	CA17.LTPT138.C8B2A.(810C507F4	M3)(V87E18)(V5R5)	60.000	.000	-14.250	BREF 14.0502 INCHES
						YMRP 13.1469 INCHES
						ZMRP .0000 INCHES
						SCALE 6.0000 INCHES
						SCALE .0150 INCHES

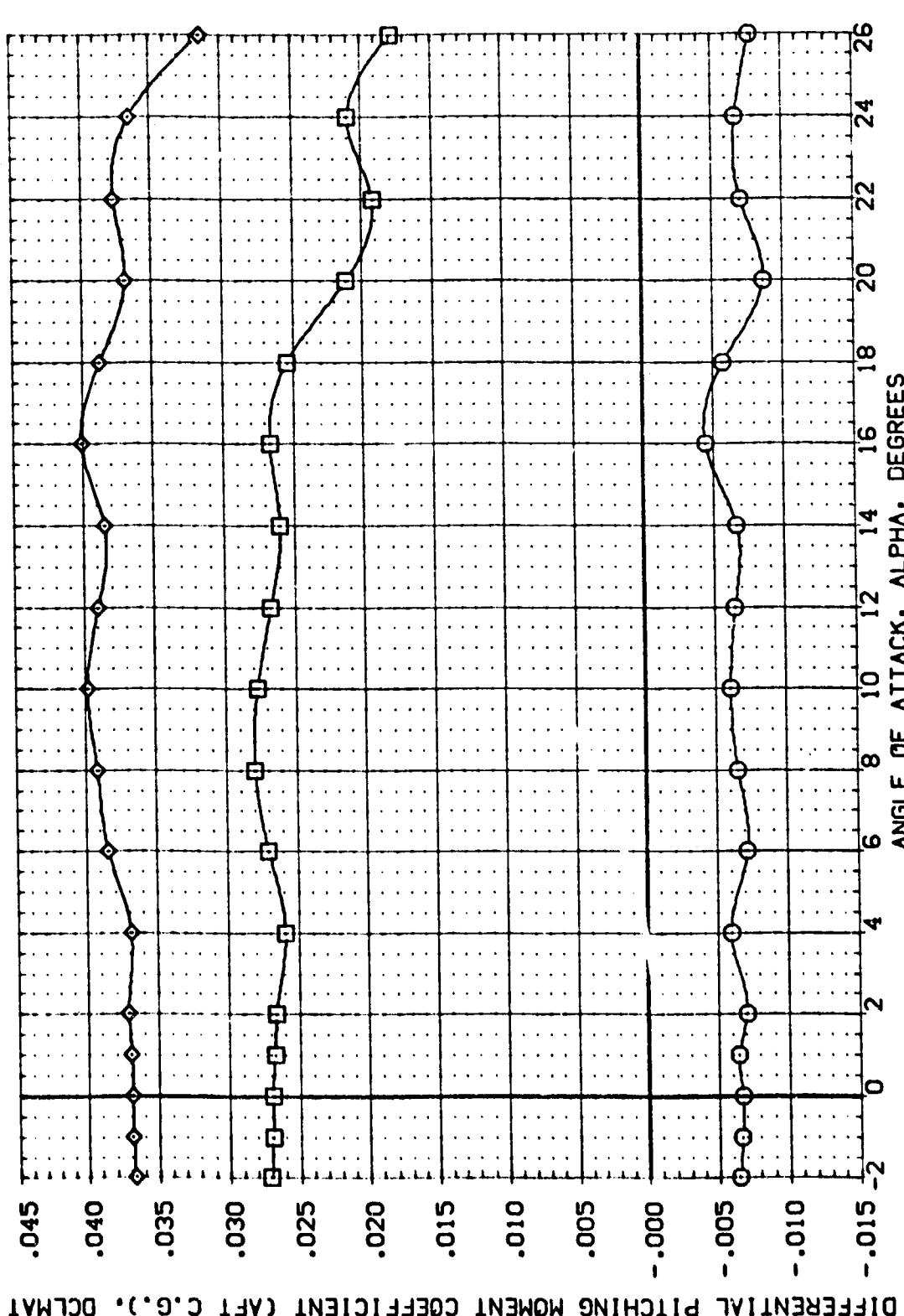


FIGURE 27 089B ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DSPBRK	RUDER	ELEVON	BOFLAP	REFERENCE INFORMATION
(FPC26)	CA17.LTPT138.CRB2A.(B10C5D7F4	-24.920	.000	.000	-14.250	SREF 87.1560 50. IN.
(FPC23)	CA17.LTPT138.CRB2A.(B10C5D7F4	30.000	.000	.000	-14.250	LREF 19.9245 INCHES
(FPC41)	CA17.LTPT138.CRB2A.(B10C5D7F4	60.000	.000	.000	-14.250	BREF 14.0502 INCHES
						XRRP 13.1469 INCHES
						YRRP .0000 INCHES
						ZRRP 6.0000 INCHES
						SCALE .0150 SCALE

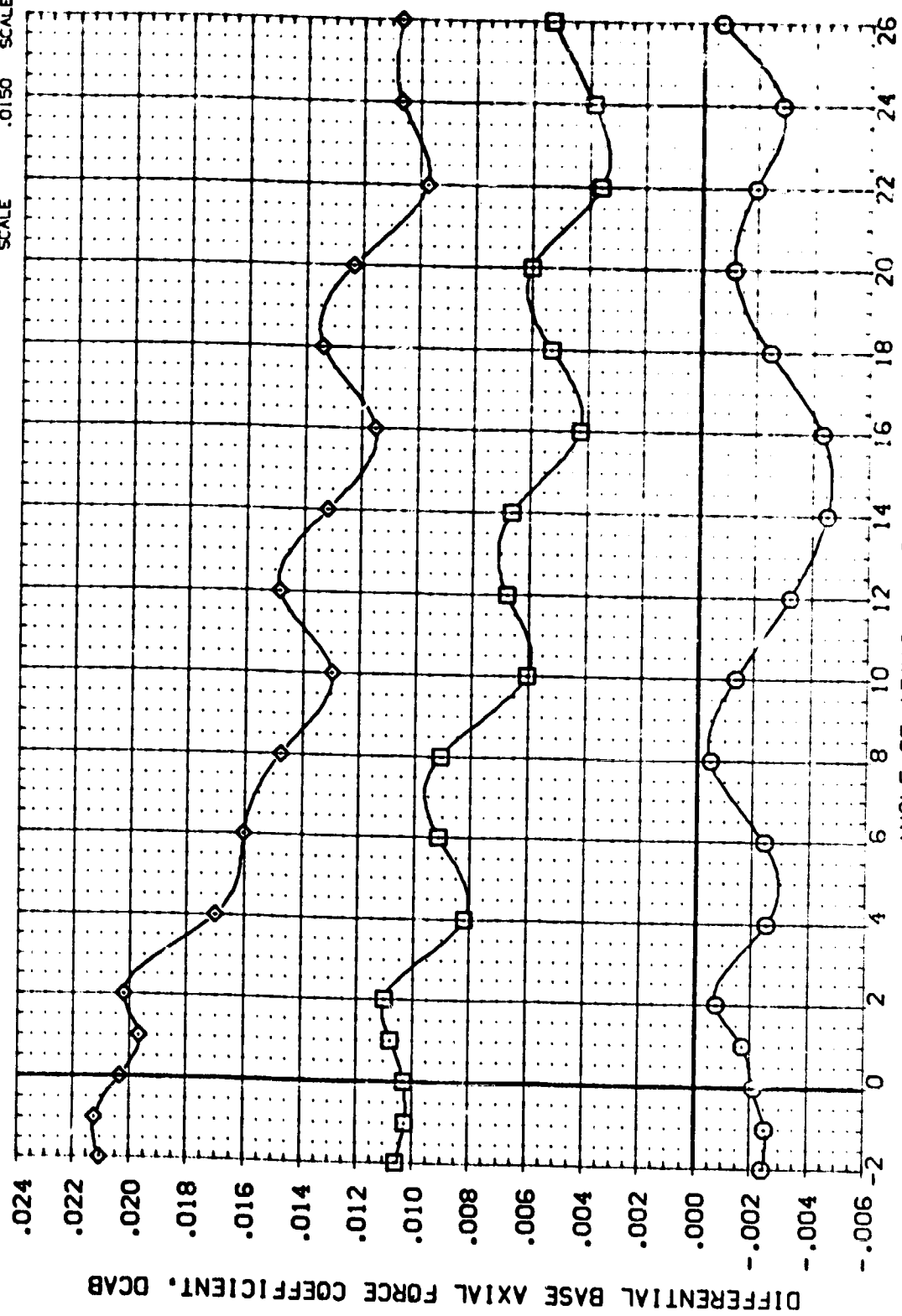


FIGURE 27 089B ORCITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

CAIRN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DSRBRK	RJODER	ELEVON	BOTLAP	REFERENCE INFORMATION
(MPO26)	CA17.LTPT138.0882A. (B1CC507F4	-24.920	.000	.000	-14.250	SREF 87.1560 SO.IN.
(MPO23)	CA17.LTPT138.0882A. (B1CC507F4	30.000	.000	.000	-14.250	LREF 19.9243 INC-ES
(MPO24)	CA17.LTPT138.0882A. (B1CC507F4	60.000	.000	.000	-14.250	BREF 14.0532 INC-ES
						YMRP 13.1489 INC-ES
						ZMRP .0000 INC-ES
						SCALE .0150 INC-ES

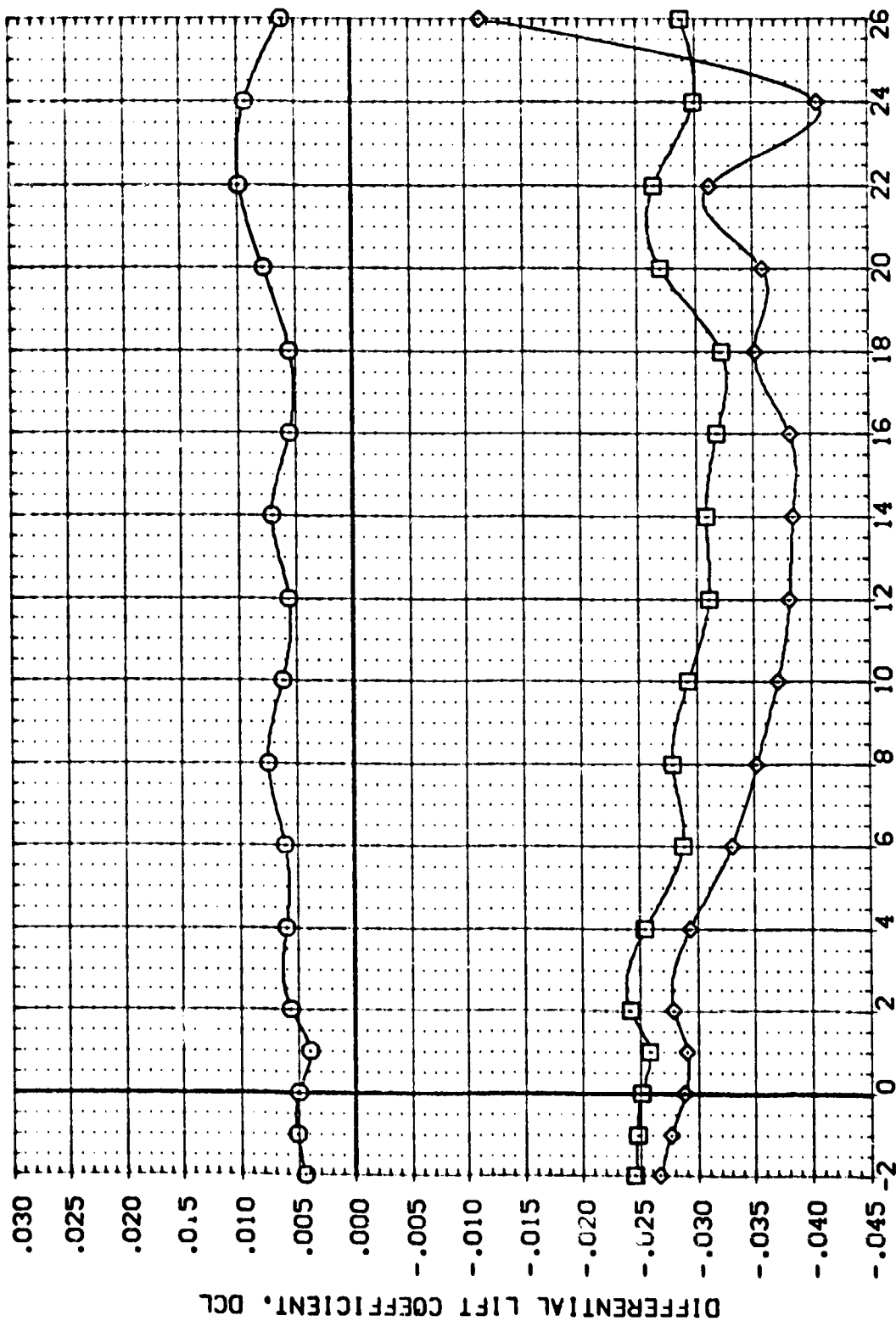


FIGURE 27 089B ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(AJRN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DSPBRK	RUDDER	ELEVON	BOFLAP	REFERENCE INFORMATION
(-ppc26)	CA17.LTPT138.DRB2A.(B10C507F4	-24.920	.000	.000	-14.250	SREF 87.1560 50. IN.
(-ppc23)	CA17.LTPT138.DRB2A.(B10C507F4	30.000	.000	.000	-14.250	LREF 19.9245 INCHES
(-ppc41)	CA17.LTPT138.DRB2A.(B10C507F4	60.000	.000	.000	-14.250	BREF 14.0502 INCHES
						XTRP 13.1469 INCHES
						YTRP 6.0000 INCHES
						ZTRP 6.0000 INCHES
						SCALE .0150 SCALE

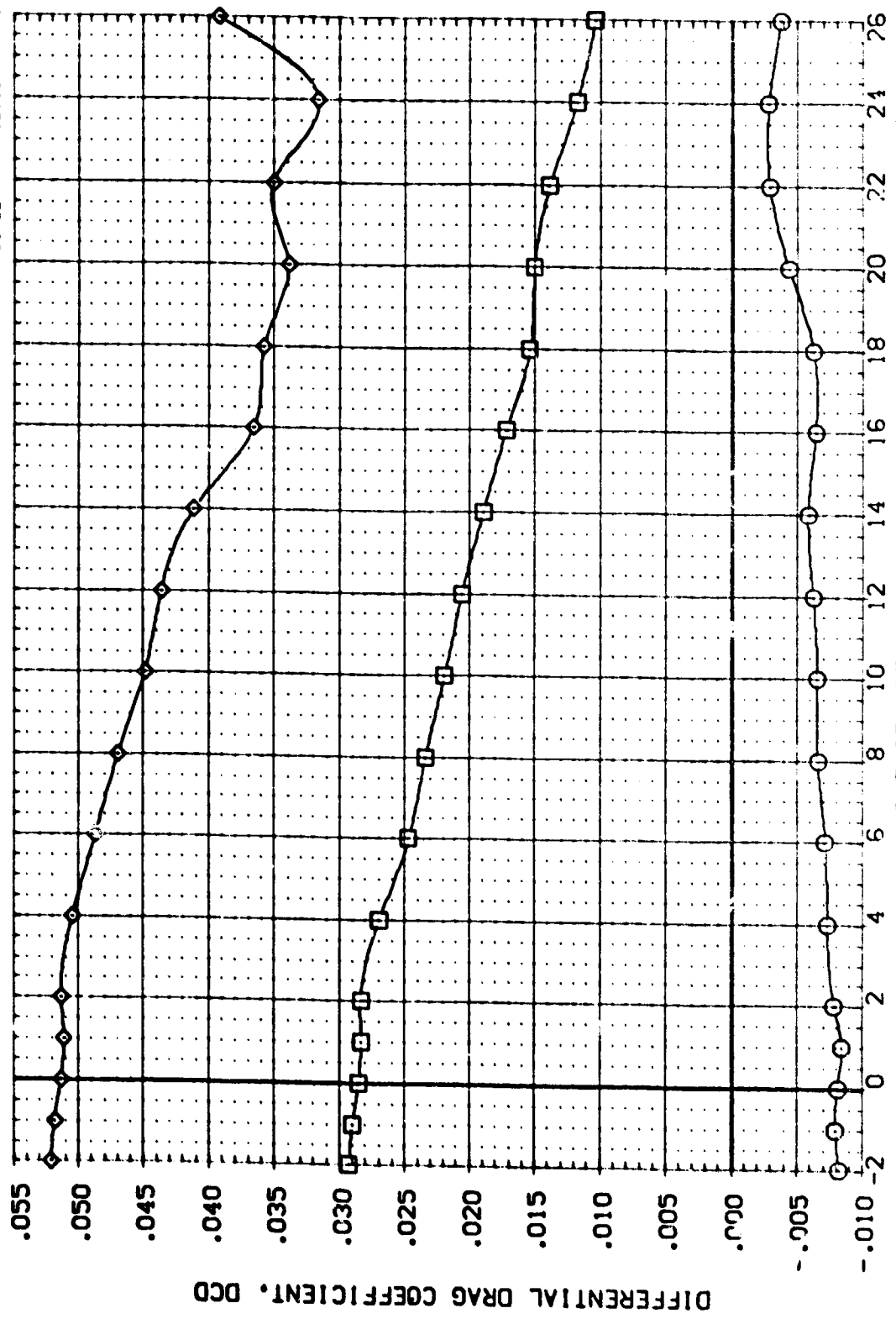


FIGURE 27 0898 ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(A) RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DSPBRK	RUDDER	ELEVON	BOFLAP	REFERENCE INFORMATION
(MPC26)	GA17.LTPT138.CRB2A.(B)DC507F4	M31(V87E18)(V585)	.000	.000	-14.250	SREF 87.1560 50.1N
(MPC23)	GA17.LTPT138.CRB2A.(B)DC507F4	M31(V87E18)(V585)	.000	.000	-14.250	LREF 19.9245 INCHES
(MPC41)	GA17.LTPT138.CRB2A.(B)DC507F4	M31(V87E18)(V585)	.000	.000	-14.250	BREF 14.0502 INCHES
						VREF 13.1459 INCHES
						ZREF 6.0000 INCHES
						SCALE .0150 INCHES

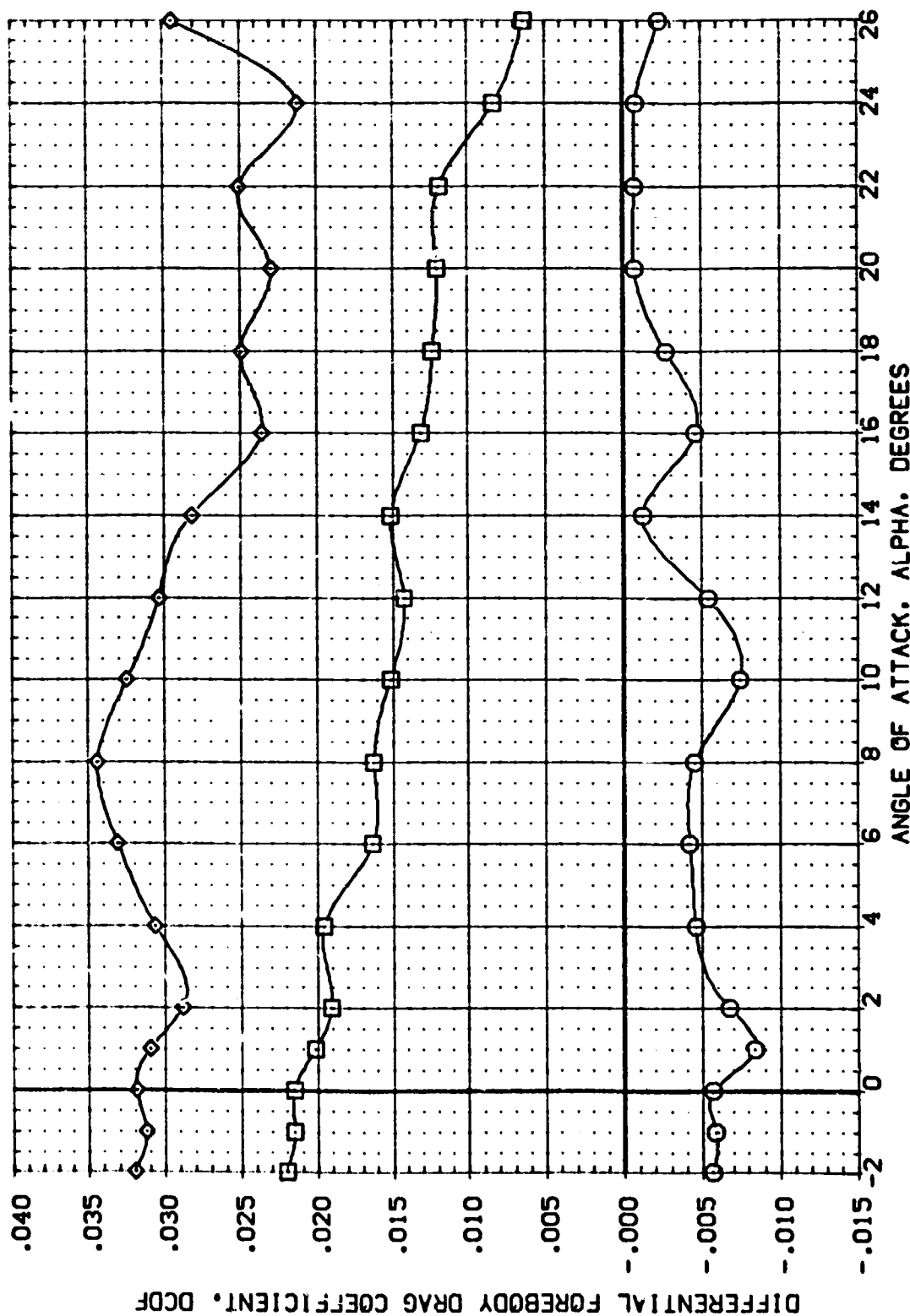


FIGURE 27 099B ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(AJRN/L = 10.00



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	OSPRK	RLODR	ELEVON	BOFLAP	REFERENCE INFORMATION
(-APP26)	CA17.LTPT138.0R82A.(B10C507F4	M31(V87E18)(V5K5)	.000	.000	-14.250	SREF 87.1560 50. IN.
(-APP23)	CA17.LTPT138.0R82A.(B10C507F4	M31(V87E18)(V5K5)	.000	.000	-14.250	LREF 19.9245 INCHES
(-APP24)	CA17.LTPT138.0R82A.(B10C507F4	M31(V87E18)(V5K5)	.000	.000	-14.250	BREF 14.0502 INCHES
						YREF 13.1469 INCHES
						ZREF 6.0000 INCHES
						SCALE .0150

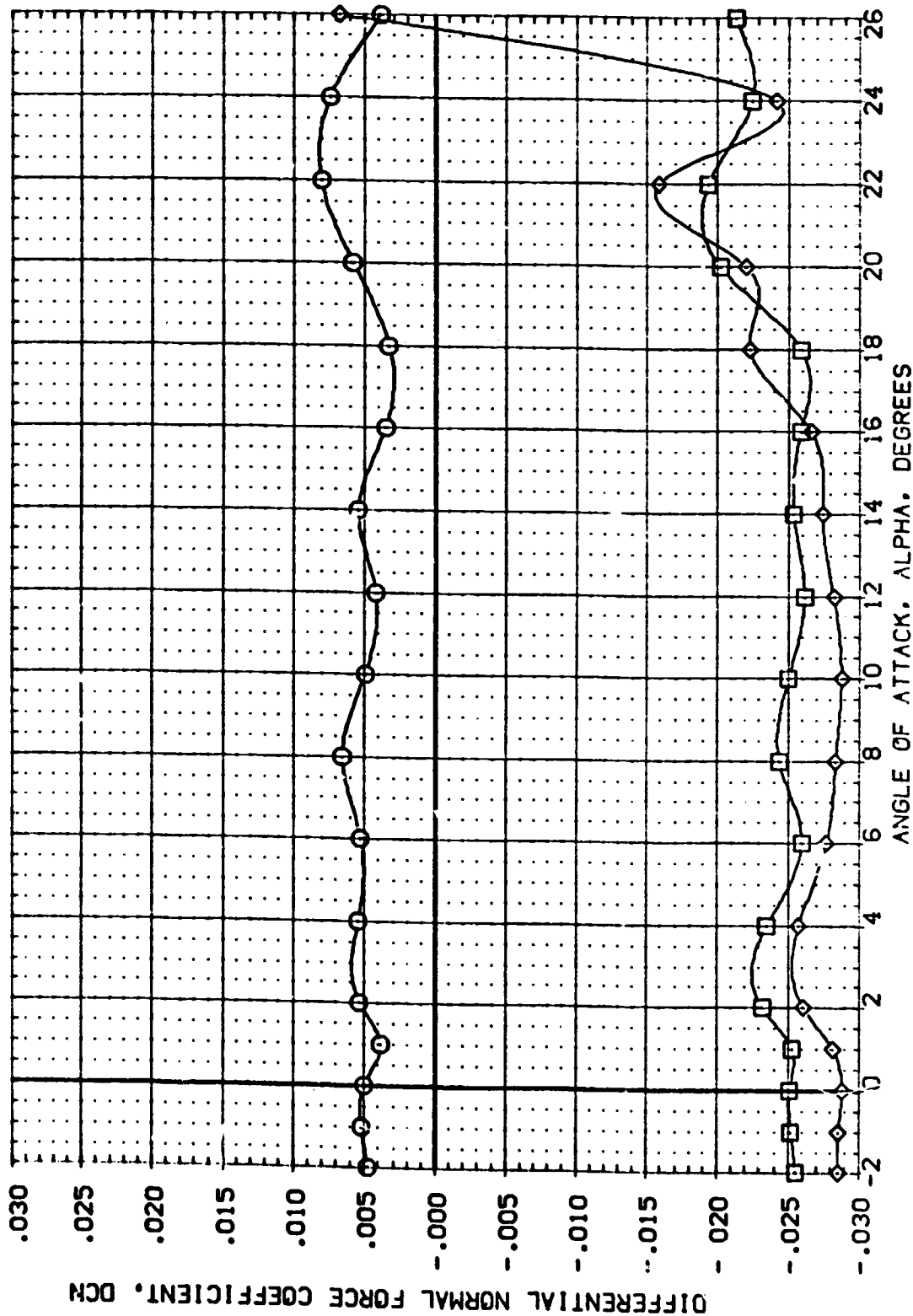


FIGURE 27 089B ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL: (HPPC26) (HPPC23) (HPPC41)

CONFIGURATION DESCRIPTION: DA17.LTPT138.0882A. (B10C507F4) DA17.LTPT138.0882A. (B10C507F4) DA17.LTPT138.0882A. (B10C507F4)

DSPBRK: -24.920 30.000 60.000

RUDDER: .000 .000 .000

ELEVON: .000 .000 .000

BOFLAP: -14.250 -14.250 -14.250

REFERENCE INFORMATION: SREF 87.1560 50. IN. LREF 19.9245 INCHES BREF 14.0502 INCHES XMRP 13.1469 INCHES YMRP .0000 INCHES ZMRP 6.0000 INCHES SCALE .0150

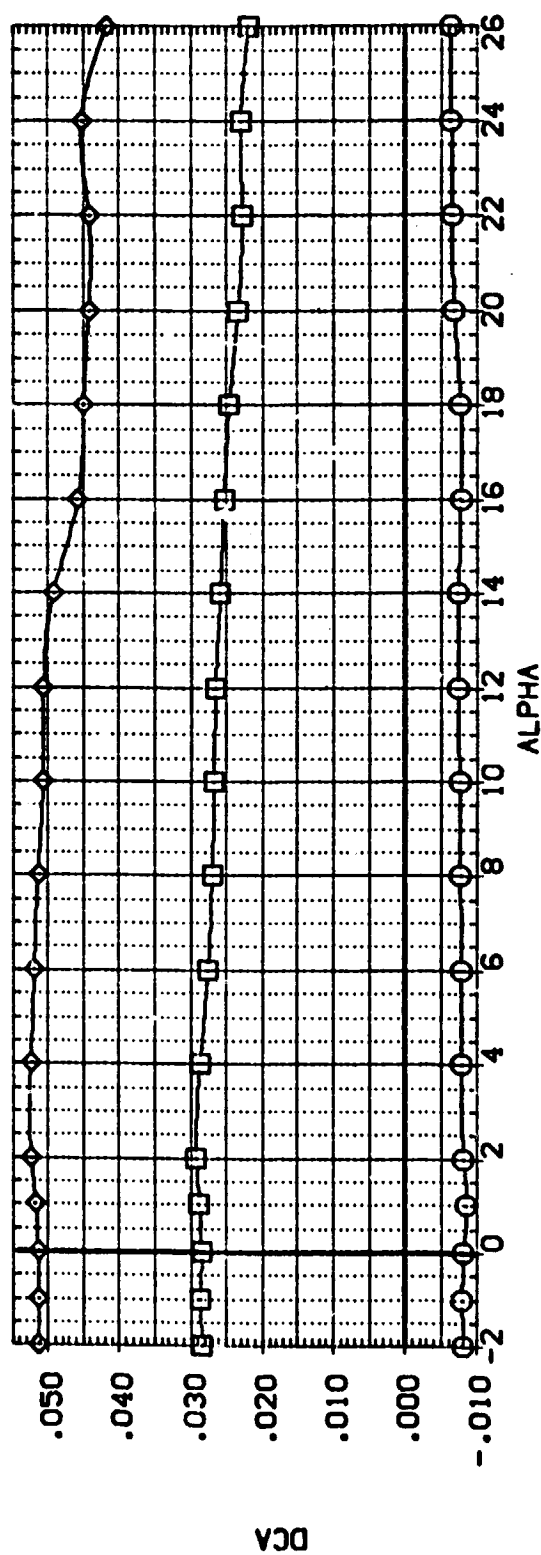
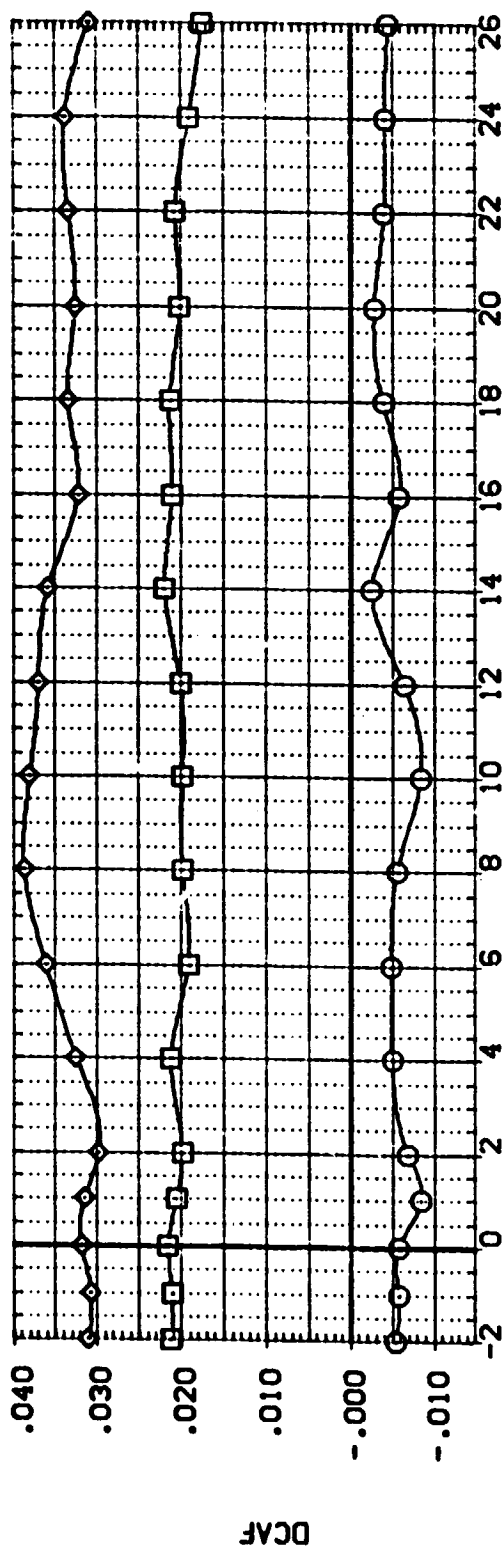
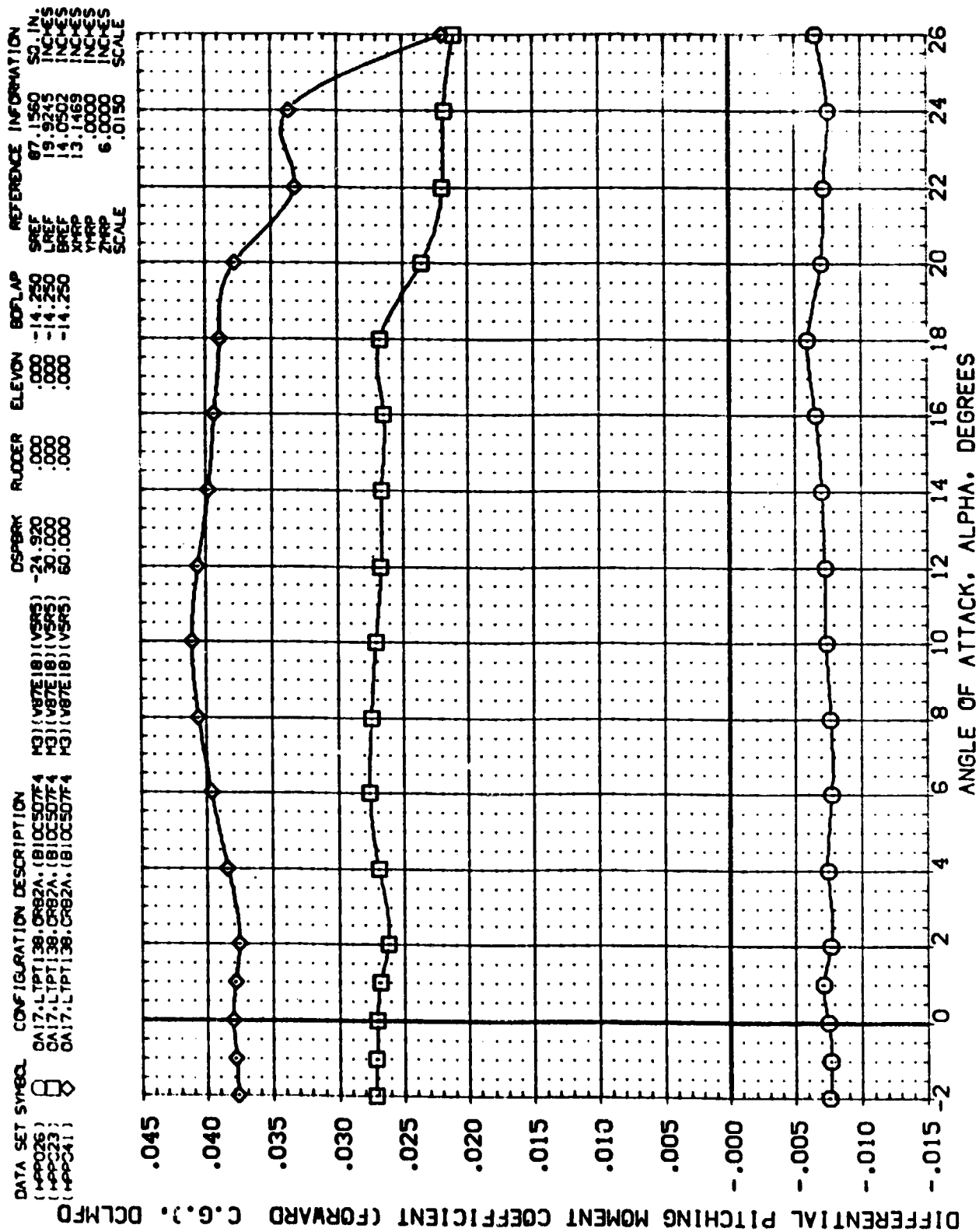


FIGURE 27 0898 ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(AJRN/L = 10.00


$$(A)RN/L = 10.00$$

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DSPBRK	RUDER	ELEVON	BOFLAP	REFERENCE INFORMATION
(-PPQ26)	DA17.LTPT138.0RB2A.(B10CS07F4	-24.920	.000	.000	-14.250	SREF 87.1560
(-PPQ23)	DA17.LTPT138.0RB2A.(B10CS07F4	30.000	.000	.000	-14.250	LREF 19.9245
(-PPQ41)	DA17.LTPT138.0RB2A.(B10CS07F4	60.000	.000	.000	-14.250	BREF 14.0502
						XTRP 13.1469
						YTRP .0000
						ZTRP .0000
						SCALE .0150
						SO. IN.

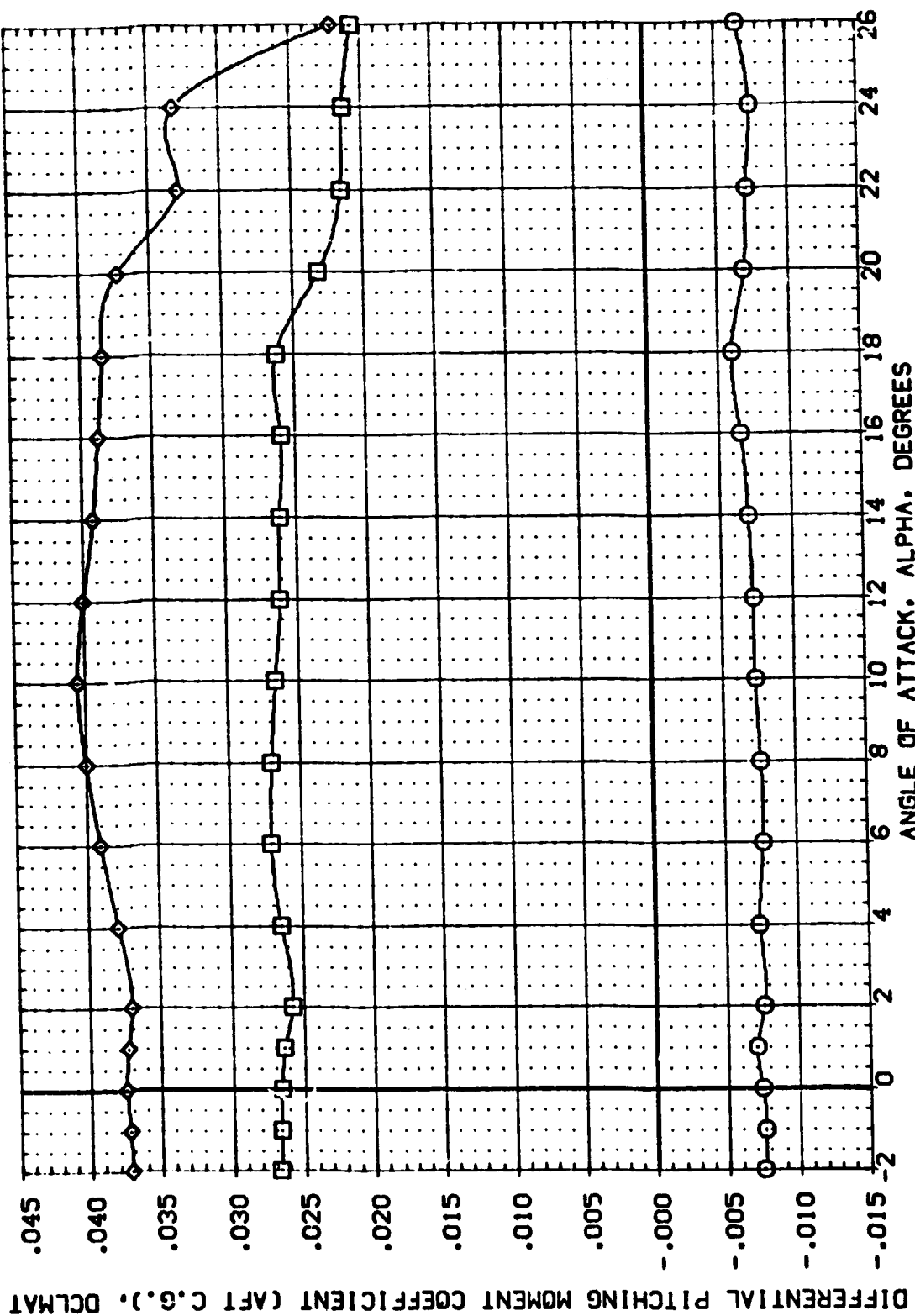


FIGURE 27 089B ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 10.00



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DSPBRK	RUDDER	ELEVON	BDFLAP	REFERENCE INFORMATION
(FPP026)	CA17.1L TPT138.0R82A. (B10CS07F4)	M31(V87E18)(V5R5)	.000	.000	-14.250	SREF 87.1560 50. IN.
(FPP023)	CA17.1L TPT138.0R82A. (B10CS07F4)	M31(V87E18)(V5R5)	.000	.000	-14.250	LREF 19.9745 INCHES
(FPP041)	CA17.1L TPT138.0R82A. (B10CS07F4)	M31(V87E18)(V5R5)	.000	.000	-14.250	BREF 14.0502 INCHES
						YMRP 13.1469 INCHES
						ZMRP 6.0000 INCHES
						SCALE .0150 INCHES

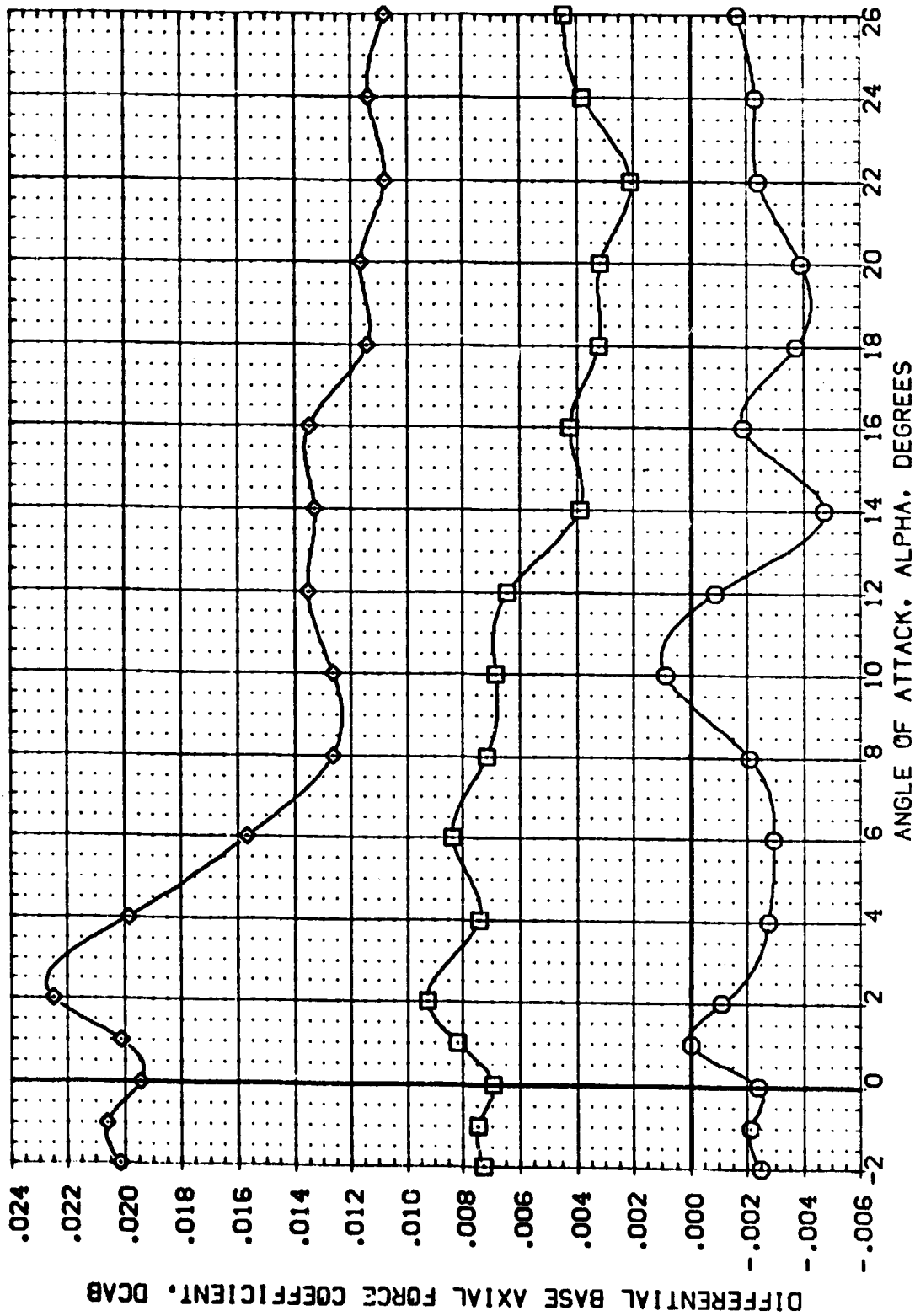


FIGURE 27 089B ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(AJRN/L = 10.00

DATA SET SYMBOL: (HPP026) (HPP023) (HPP041)

CONFIGURATION DESCRIPTION: DA17.LPT138.0882A.(810C507F4) (H3)(V07E18)(V595) -24.920 30.000 60.000

DATA NOT AVAILABLE

DATA NOT AVAILABLE

REFERENCE INFORMATION: SREF 87.1550 50. IN INCHES LREF 19.9245 INCHES BREF 14.0502 INCHES XMRP 13.1469 INCHES YMRP 6.0000 INCHES SCALE .0150

BOFLAP: -14.250 -14.250 -14.250

ELEVON: .000 .000 .000

RUDDER: .000 .000 .000

DSPBRK: -24.920 30.000 60.000

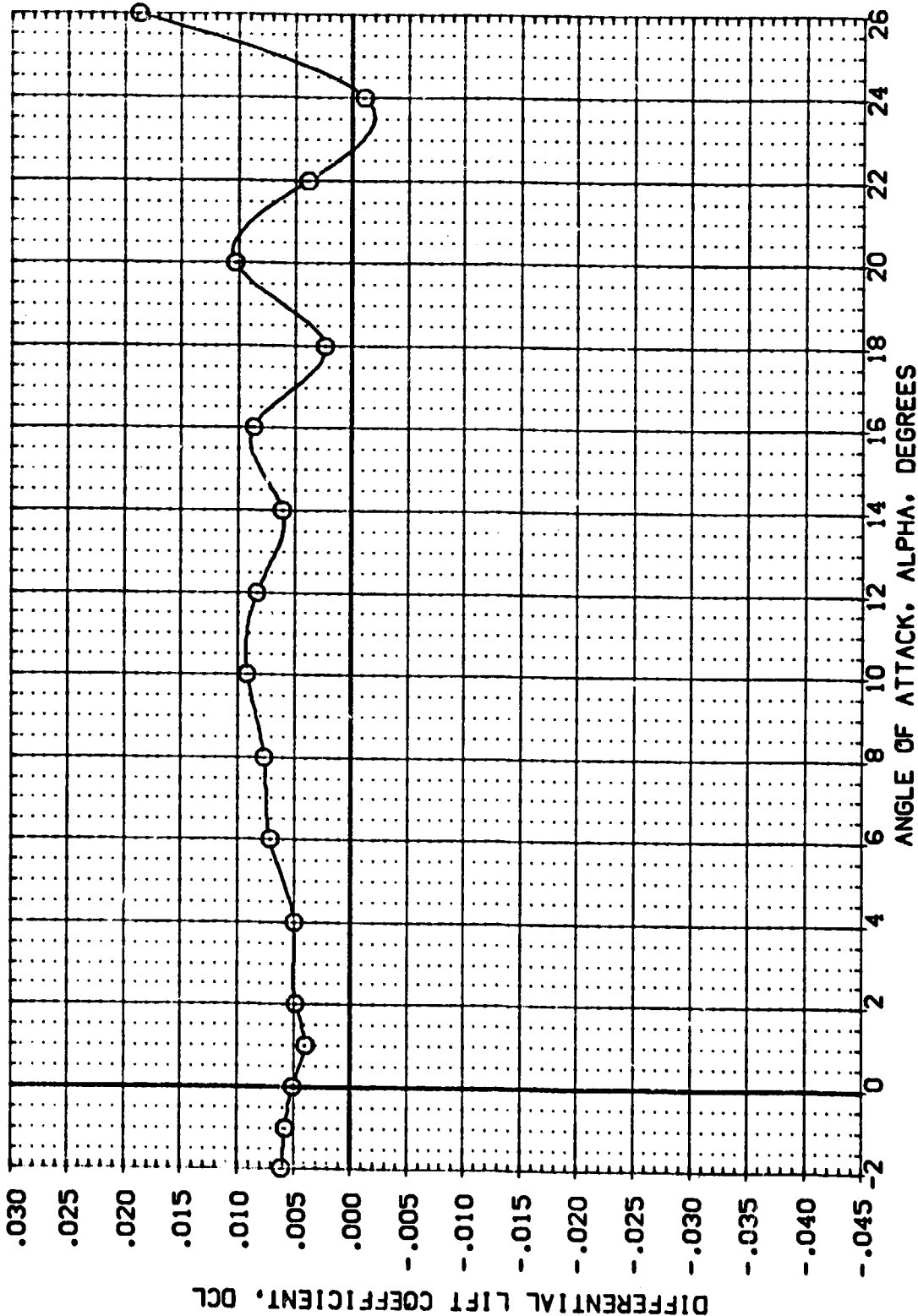
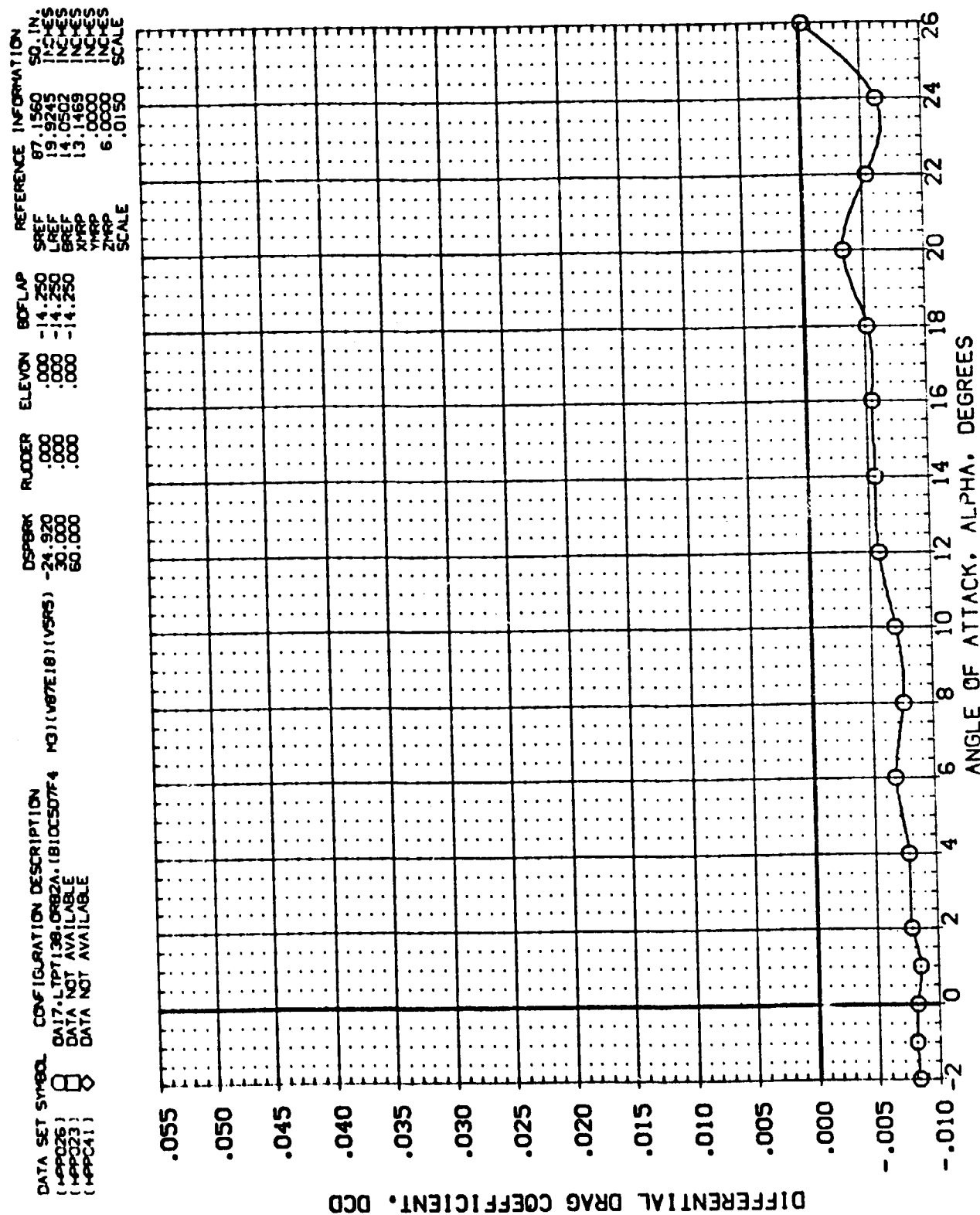


FIGURE 27 089B ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 12.50



DATA SET SYMBOL: \square (MPC026) \square (MPC023) \square (MPC041)

CONFIGURATION DESCRIPTION: 0A17-LTPT138-0R82A-1B10C507F4
 DATA NOT AVAILABLE
 DATA NOT AVAILABLE

DSPBRK: -24.920
 30.000
 60.000

RUDER: .000
 .000
 .000

ELEVON: .000
 .000
 .000

BOFLAP: -14.250
 -14.250
 -14.250

REFERENCE INFORMATION:
 SREF: 87.1560 50.1 IN
 LREF: 19.9245 INCHES
 BREF: 14.0502 INCHES
 YMRP: 1.5 1469 INCHES
 ZMRP: 6.0 1000 INCHES
 SCALE: .01 10

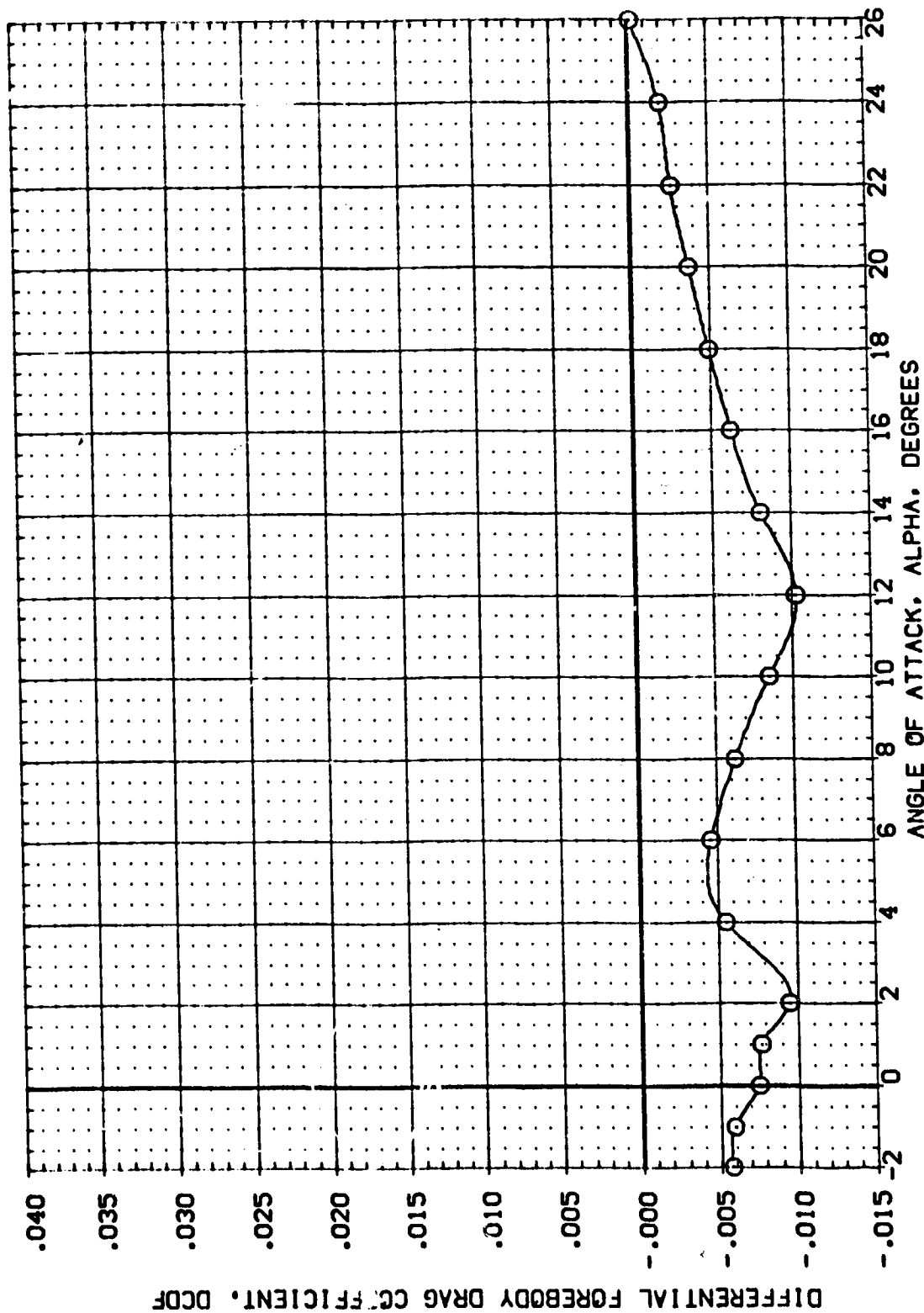


FIGURE 27 089B ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(AJRN/L = 12.50



DATA SET SYMBOL: (HPP026) (HPP023) (HPP041)

CONFIGURATION DESCRIPTION: QAL7,LTPT;38,ORR2A,(B10C507F4 M3)((V87E18)((V5R5)

DATA NOT AVAILABLE

DATA NOT AVAILABLE

DSPBRK: -24.920 30.000 60.000

RUDER: .000 .000 .000

ELEVON: .000 .000 .000

BOFLAP: -14.250 -14.250 -14.250

REFERENCE INFORMATION:

	SO. IN.
SREF	87.1560
LREF	19.9245
BREF	14.0502
XMRP	13.1459
YMRP	.0000
ZMRP	6.0000
SCALE	.0150

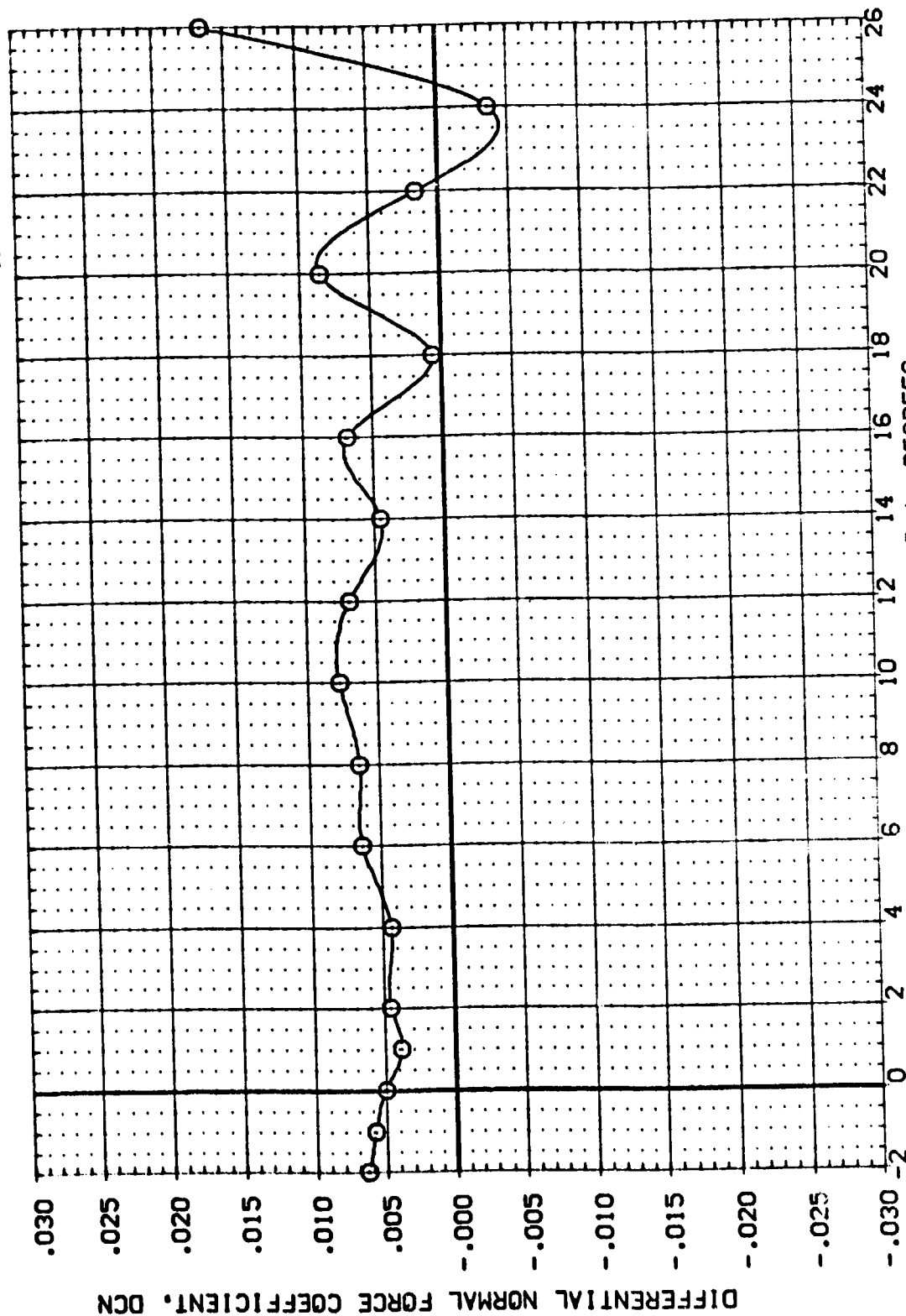


FIGURE 27 089B ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(A)RN/L = 12.50

REFERENCE INFORMATION	
SREF	87.1560 SQ. IN.
LREF	19.9245 INCHES
BREF	14.0502 INCHES
XMRP	13.1469 INCHES
YMRP	.0000 INCHES
ZMRP	6.0000 INCHES
SCALE	.0150 SCALE

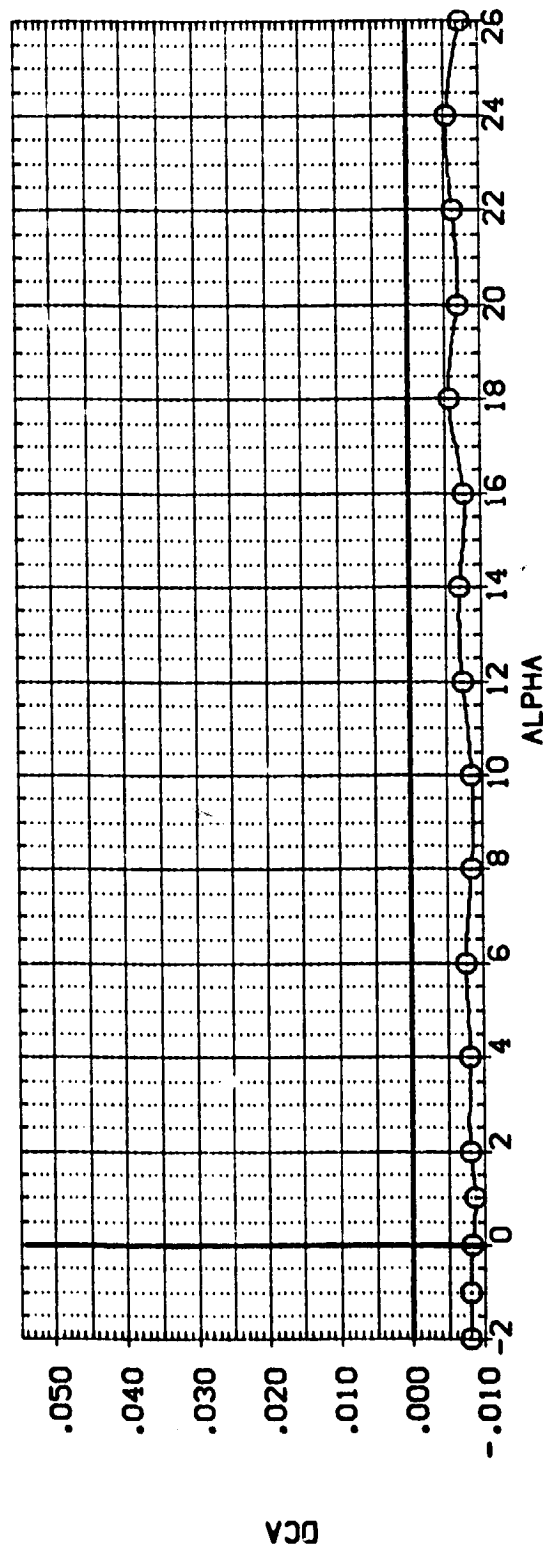
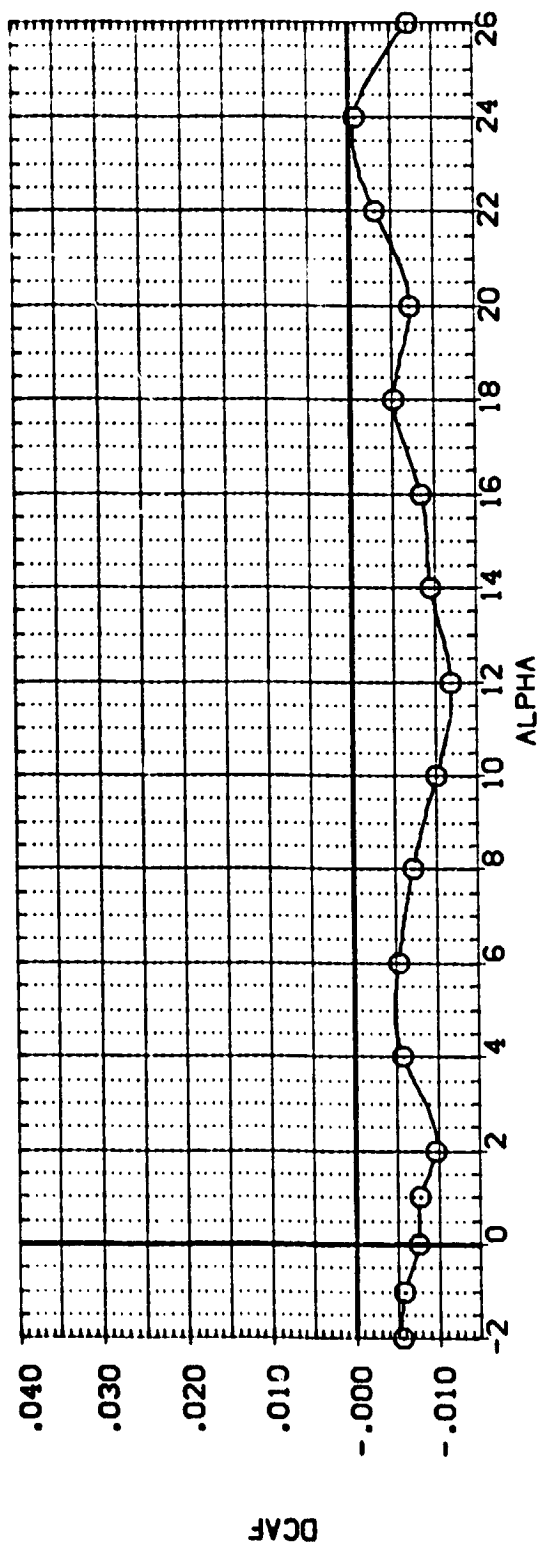


FIGURE 27 089B ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

$$[A]_{RN/L} = 12.50$$



DATA SET SYMBOL: (HPP026) (HPP023) (HPP041)
CONFIGURATION DESCRIPTION: 0A17.LTPT138.0R82A.(B10C507F4 M3)(V87E18)(VSR5)
DATA NOT AVAILABLE
DCLMPD

DSBRK	RUDER	ELEVON	BLVLAP	REFERENCE INFORMATION
-24.920	.000	.000	-14.250	SREF 87.1550 50 IN.
30.000	.000	.000	-4.250	LREF 19.9245 INCHES
60.000	.000	.000	-4.250	BREF 14.0502 INCHES
				XTRP 13.1469 INCHES
				YTRP 6.0000 INCHES
				ZTRP 6.0000 INCHES
				SCALE .0150

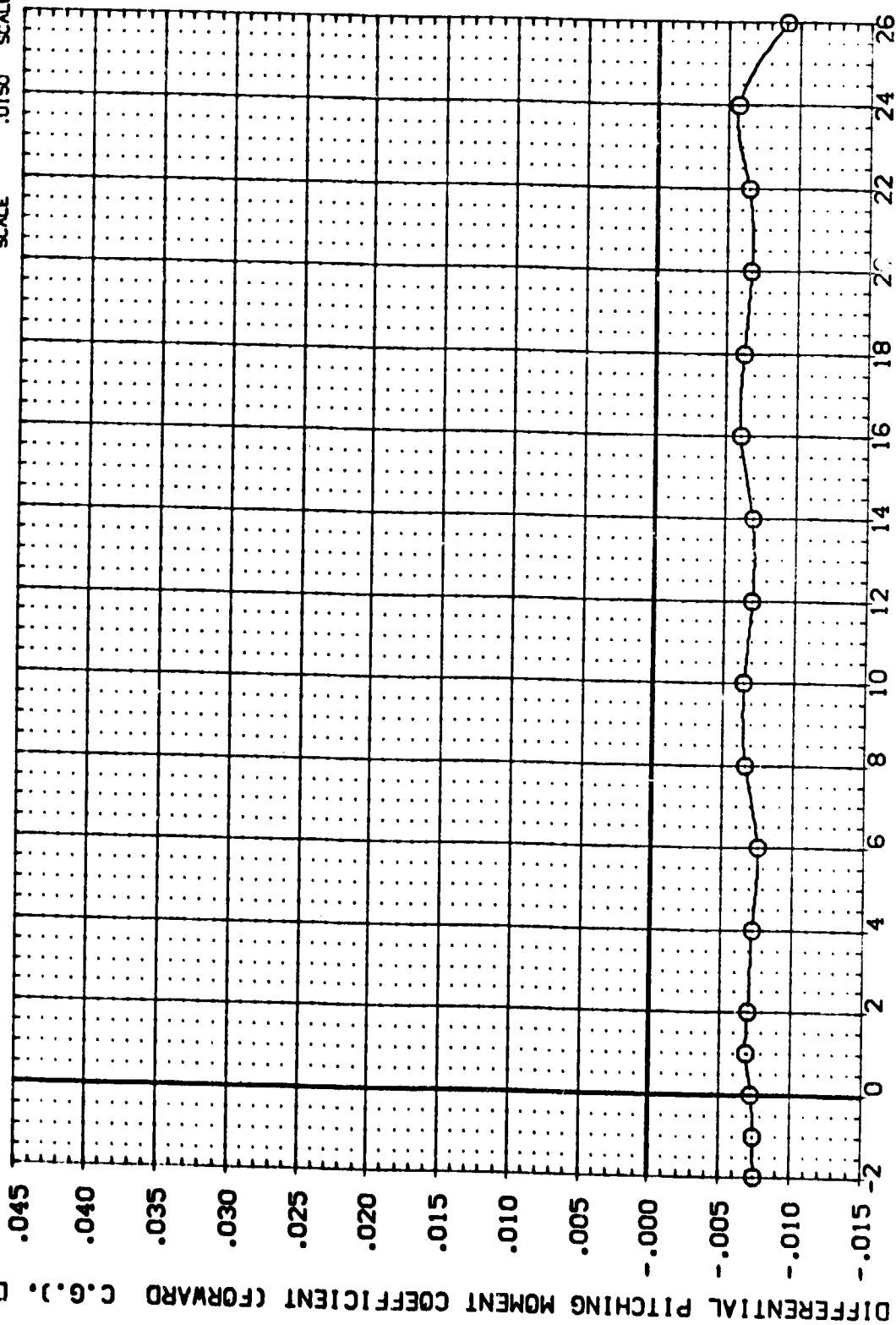


FIGURE 27 0898 ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(A)R/V/L = 12.50

DATA SET SYMBOL: (HPP026)
 (HPP023)
 (HPP041)
 CONFIGURATION DESCRIPTION: DA17-LTPT138-0882A-(810C507F4)
 DATA NOT AVAILABLE
 DATA NOT AVAILABLE
 DATA NOT AVAILABLE
 DSRBRK: (VSR5) -24.320
 30.000
 60.000
 RUDDER: .000
 .000
 .000
 ELEVON: .000
 .000
 .000
 BOFLAP: -14.250
 -14.250
 -14.250
 REFERENCE INFORMATION:
 SREF: 87.1550 SO IN
 LREF: 19.9245 INCHES
 BREF: 14.0502 INCHES
 XMRP: 13.1469 INCHES
 YMRP: .0000 INCHES
 ZMRP: 6.0000 INCHES
 SCALE: .0150 SCALE

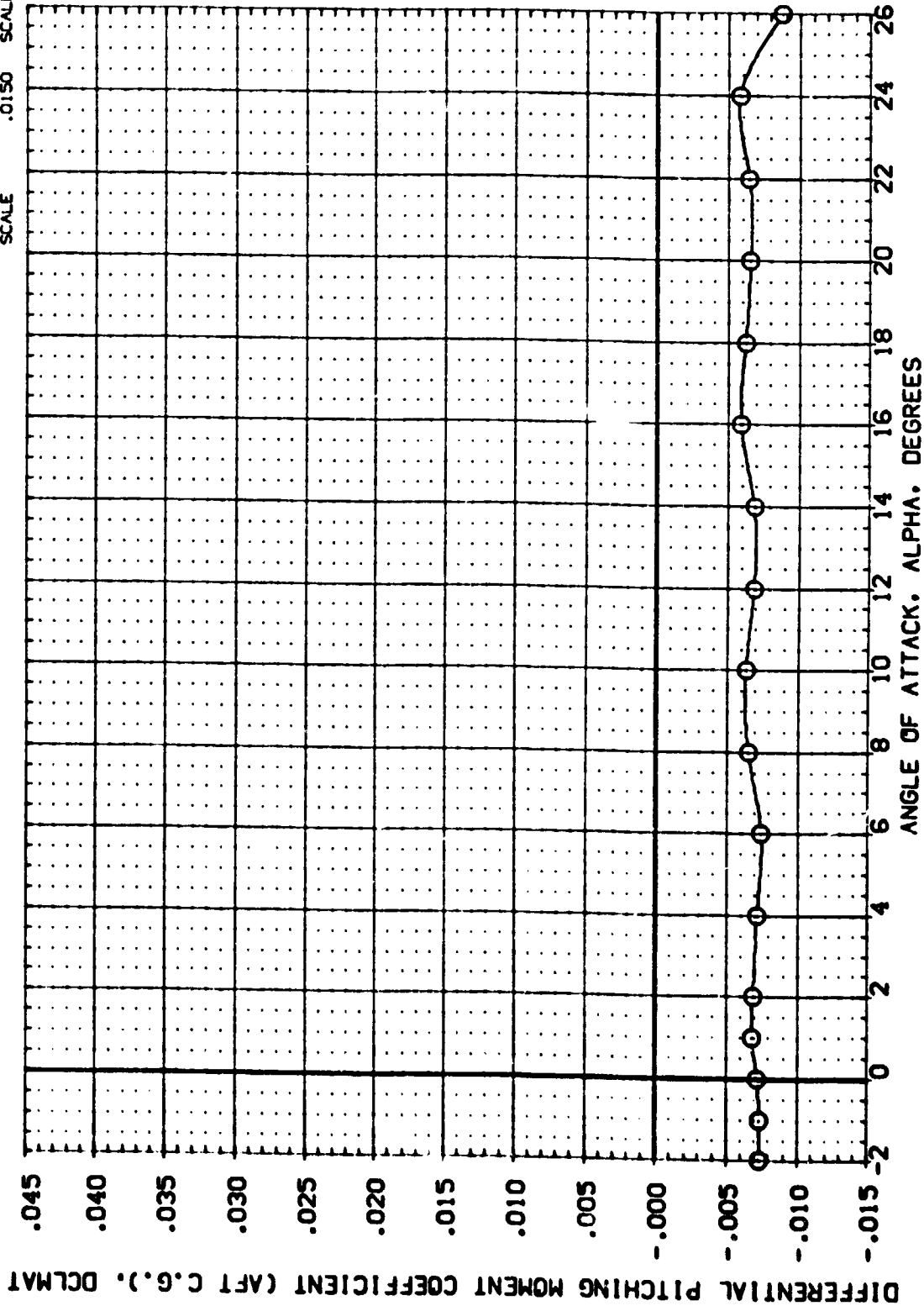


FIGURE 27 0898 ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

(AJRN/L = 12.50



DATA SET SYMBOL: (FPO26) (FPO23) (FPO41)
CONFIGURATION DESCRIPTION: QAL7.LTPT136.DR82A.(810C507F.4 (17.)(V87E18)(V59S)
DATA NOT AVAILABLE
Differential Base Axial Force Coefficient, DCAB
DSRBK: -24.920 30.000 60.000
RUDDER: .000 .000 .000
ELEVON: .000 .000 .000
BOFLAP: -14.250 -14.250 -14.250
REFERENCE INFORMATION:
SREF: 87.1560 SO.IN: 19.9245 INCHES
LREF: 14.0502 INCHES
BREF: 13.1469 INCHES
YPRP: 6.0000 INCHES
ZPRP: .0150 INCHES
SCALE

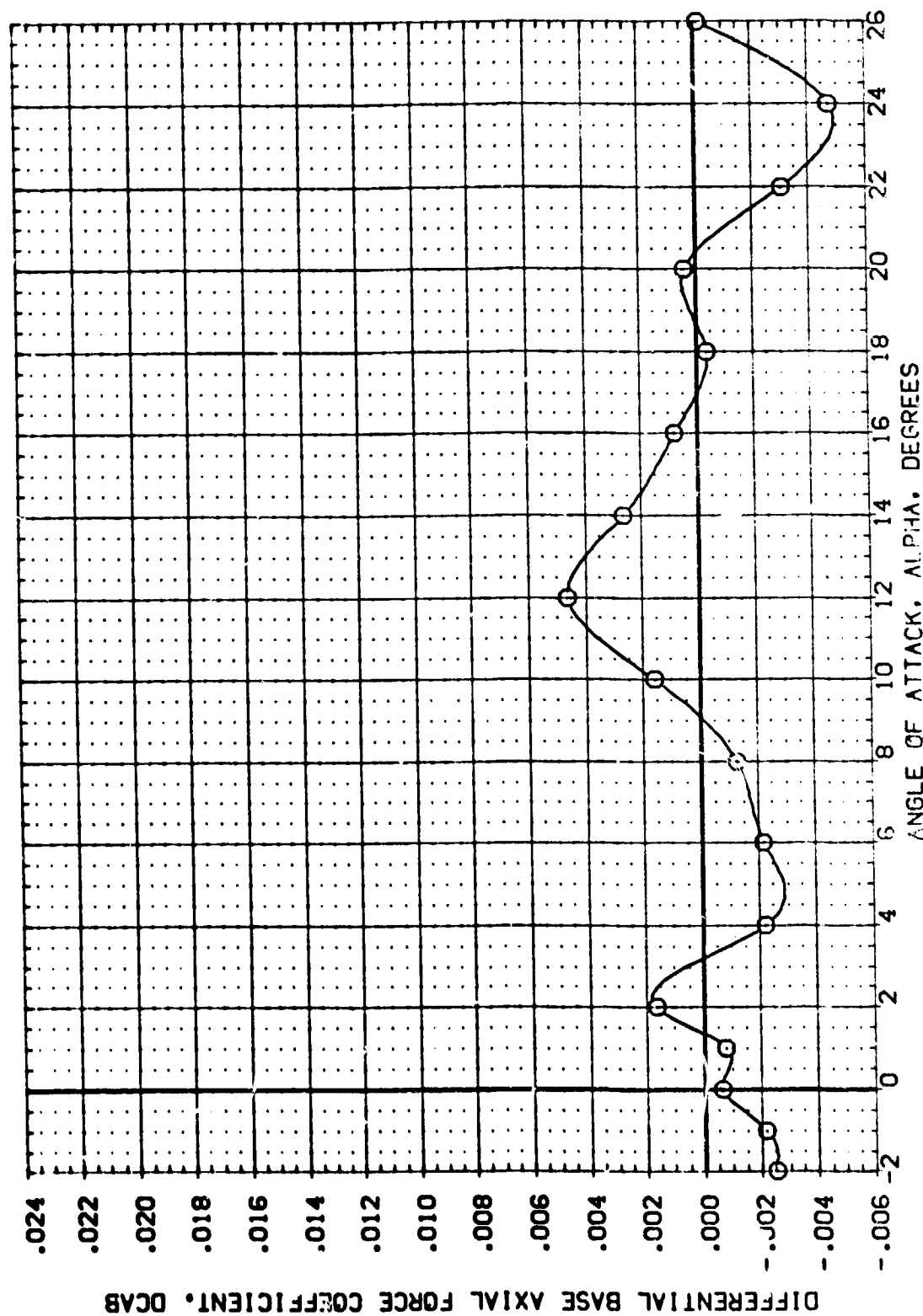


FIGURE 27 0898 ORBITER C-110 DRAKE DEFLECTION INCREMENTAL EFFECTS

(A)R/V/L = 12.50

0A17.LTPT138.0R92A.(B10C507F4 M3)(W87E18)(V5R5)(NPP026)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	RV/L	DATA SET	DSPBRK	SREF	SO, IN.
.000	4.700	.000	.000	LREF	INCHES
10.000	.000	.000 NPP026	.000	BREF	INCHES
20.000	ELEVON	.000 NPP023	60.000	AMRP	INCHES
30.000	BOFLAP			VMRP	INCHES
				ZMRP	INCHES
				SCALE	SCALE
					.0150

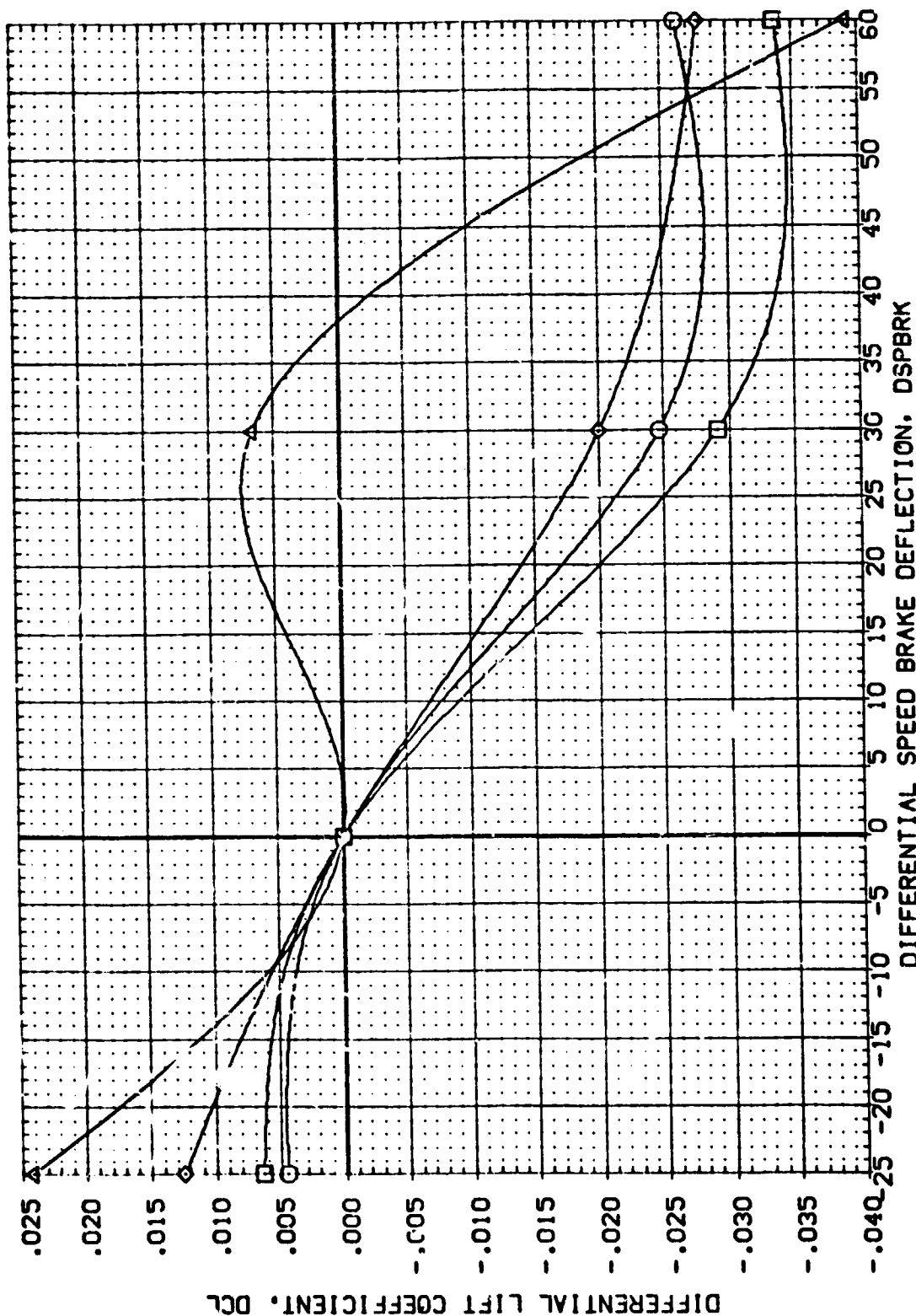


FIGURE 27 089B ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

0A17.LTPT138.0R82A.(B10C5D7F4 M3)(W87E18)(V5R5)(NPP026)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
SYMBOL	ALPHA	DATASET	DSPBRK	SREF	50. IN.
□	.000	.000	.000	LREF	INCHES
□	10.000	NPP026	60.000	BREF	INCHES
□	20.000	NPP023		XREF	INCHES
△	30.000			YREF	INCHES
				ZREF	INCHES
				SCALE	SCALE

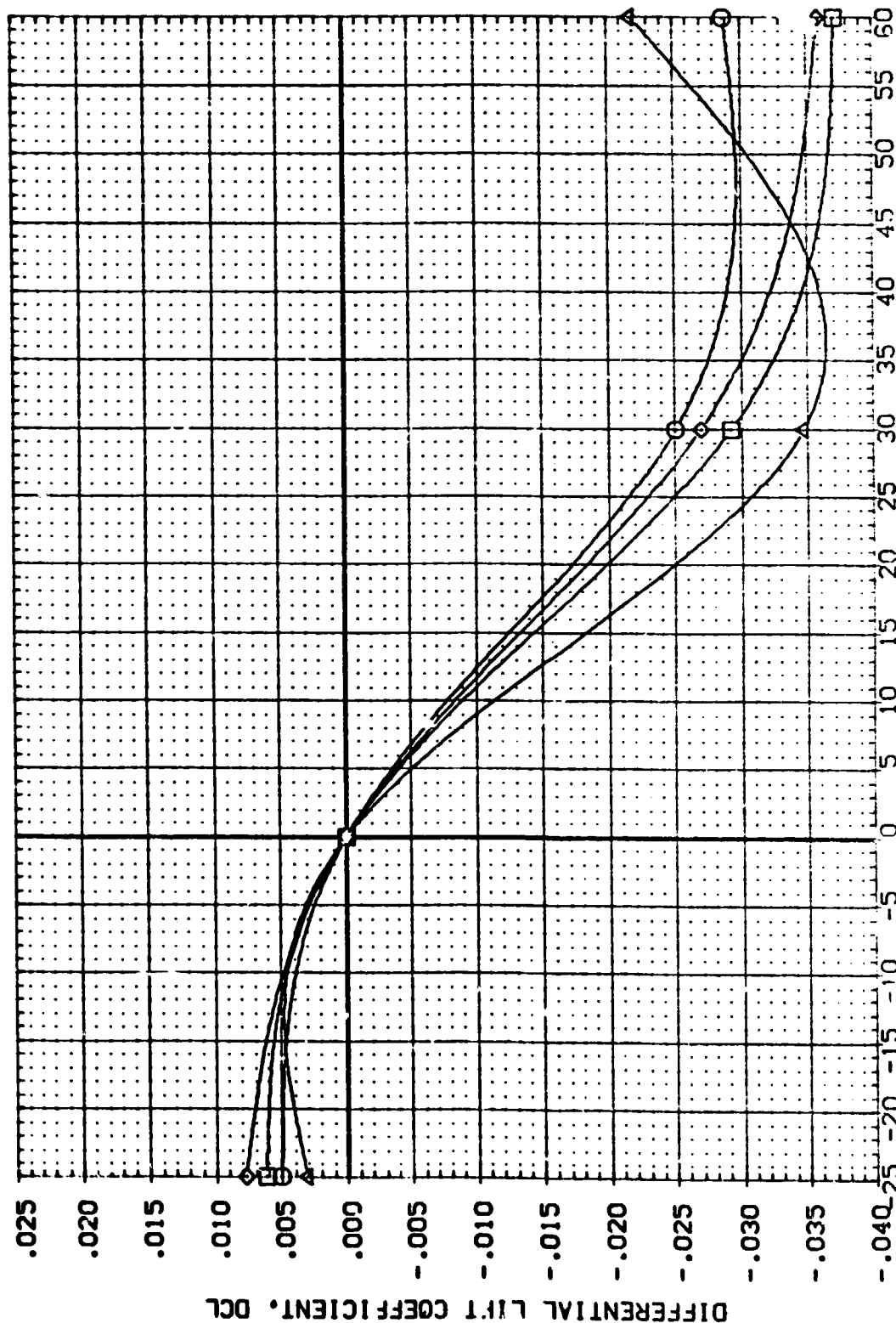
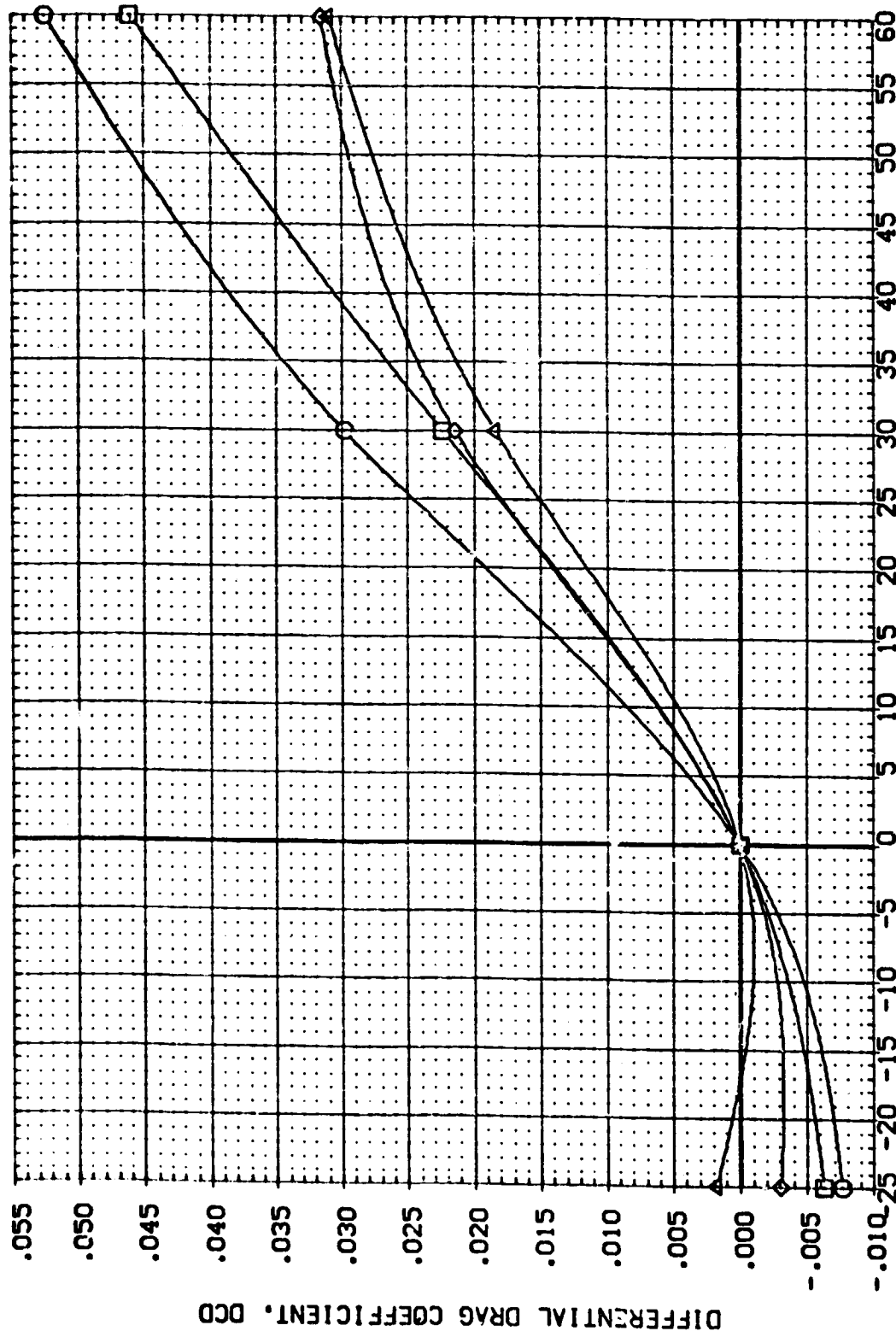


FIGURE 27 0898 ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

0A17.LIPT138.082A.(B10C507F4 M3)(W87E18)(V5R5)(NPP026)

SYMBOL	ALPHA	PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION	
○	.000	RNVL	4.700	RUDDER	.000	DSPBRK	SREF	87.1560
□	10.000	ELEVON	.000	A1LRON	.000	-24.920	LREF	19.9245
◇	20.000	BDFLAP	-14.250	BETA	.000	NPP026	BREF	14.0502
△	30.000				.000	NPP023	YMRP	13.1469
						NPP041	ZMRP	6.0000
							SCALE	.0150



DIFFERENTIAL SPEED BRAKE DEFLECTION, DSPBRK

FIGURE 27 089B ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS



0A17.LTPT138.0R82A.(B10C3D7F4 M3)(W87E18)(V5R5)(NPP026)

SYMBOL	ALPHA	RN/L	ELEVON	BD/FLAP	PARAMETRIC VALUES	DATA SOURCE	DSPBRK	DSPBRK	SCALE	REFERENCE INFORMATION	SO. IN.
○	.000	10.000	ALLDOR							87.1560	INCHES
□	10.000	.000	ALLRON							19.9245	INCHES
△	20.000	.000	BE/A							14.0502	INCHES
	30.000	-14.250								13.1468	INCHES
										6.0000	INCHES
										6.0000	INCHES
										.0150	SCALE

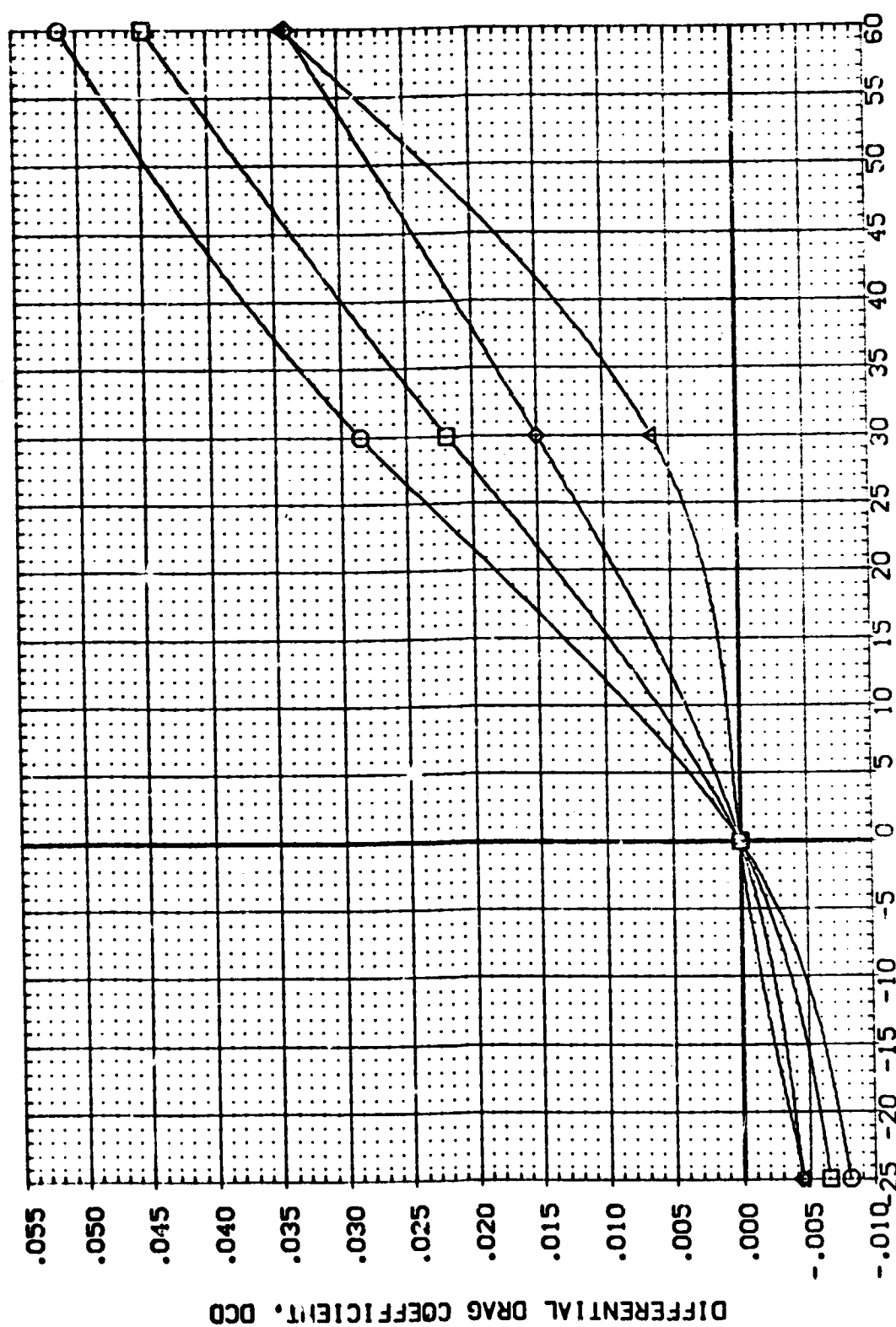
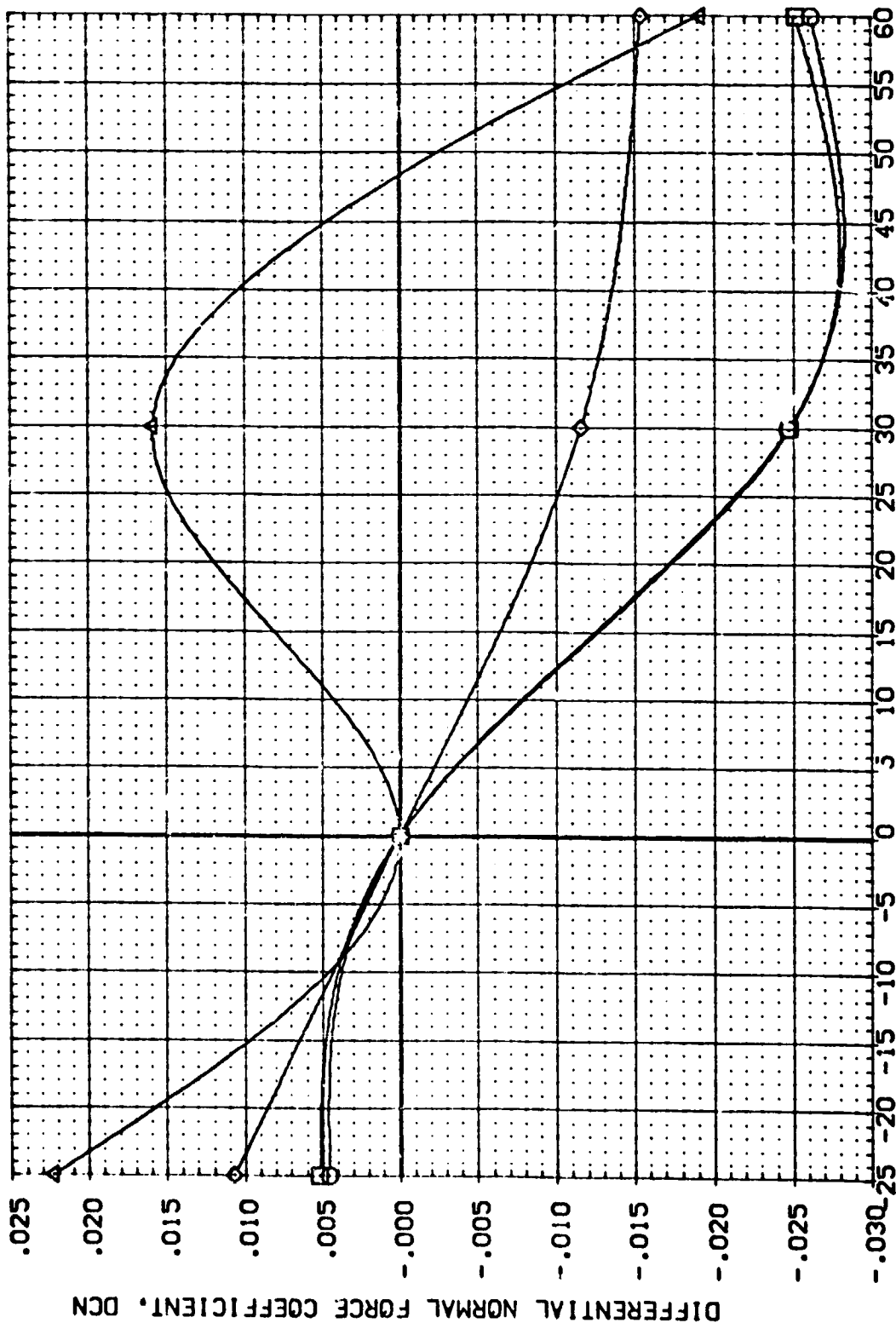


FIGURE 27 089B ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	.000	RN/L	DSPBRK	SREF 87.1560 INCHES
□	10.000	ELEVON	NP127	LREF 19.9245 INCHES
◇	20.000	BOFLAP	NPFO41	BREF 14.0502 INCHES
△	30.000			XREF 13.1469 INCHES
				YREF .0000 INCHES
				ZREF 6.0000 INCHES
				SCALE .0150 SCALE



DIFFERENTIAL SPEED BRAKE DEFLECTION. DSPBRK

FIGURE 27 089B ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION	SO. IN.
<input type="checkbox"/>	.000	RN/L	.000	DSPEBK	87.1500
<input type="checkbox"/>	10.000	ELEVON	.000	REF	9.9245
<input type="checkbox"/>	20.000	BOFLAP	.000	REF	14.0503
<input type="checkbox"/>	30.000		.000	XPRP	13.1469
<input type="checkbox"/>			.000	YPRP	6.0000
<input type="checkbox"/>			.000	ZPRP	6.0000
<input type="checkbox"/>			.000	SCALE	.0150

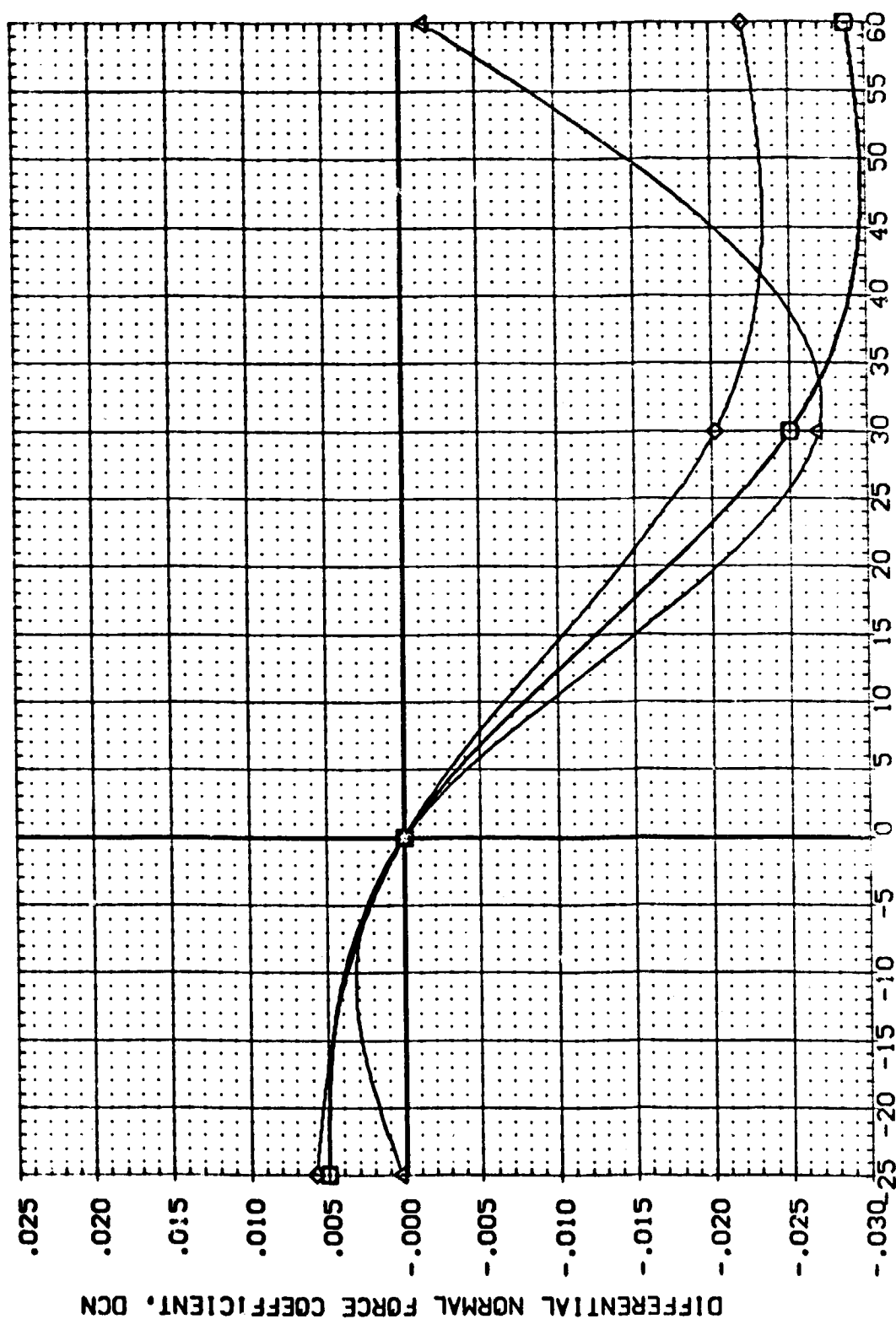


FIGURE 27 089B ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

0A17.LTPT138.0RB2A.(B10C507F4 M3)(W87E18)(V5R5)(NPP026)

SYMBOL	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
	ALPHA	RNVL	RUDER		DSPBRK	DSPBRK	DSPBRK		SREF	SO. IN.		
○	.000		4.700		.000	.000	.000		19.9245	INCHES		
□	10.000	ELEVON	.000	AILRON	.000	.000	.000		14.0502	INCHES		
◇	20.000	BOFLAP	-14.250	BETA	.000	.000	.000		13.1469	INCHES		
△	30.000				.000	.000	.000		6.0000	INCHES		
									ZRRP	SCALE		
									.0150			

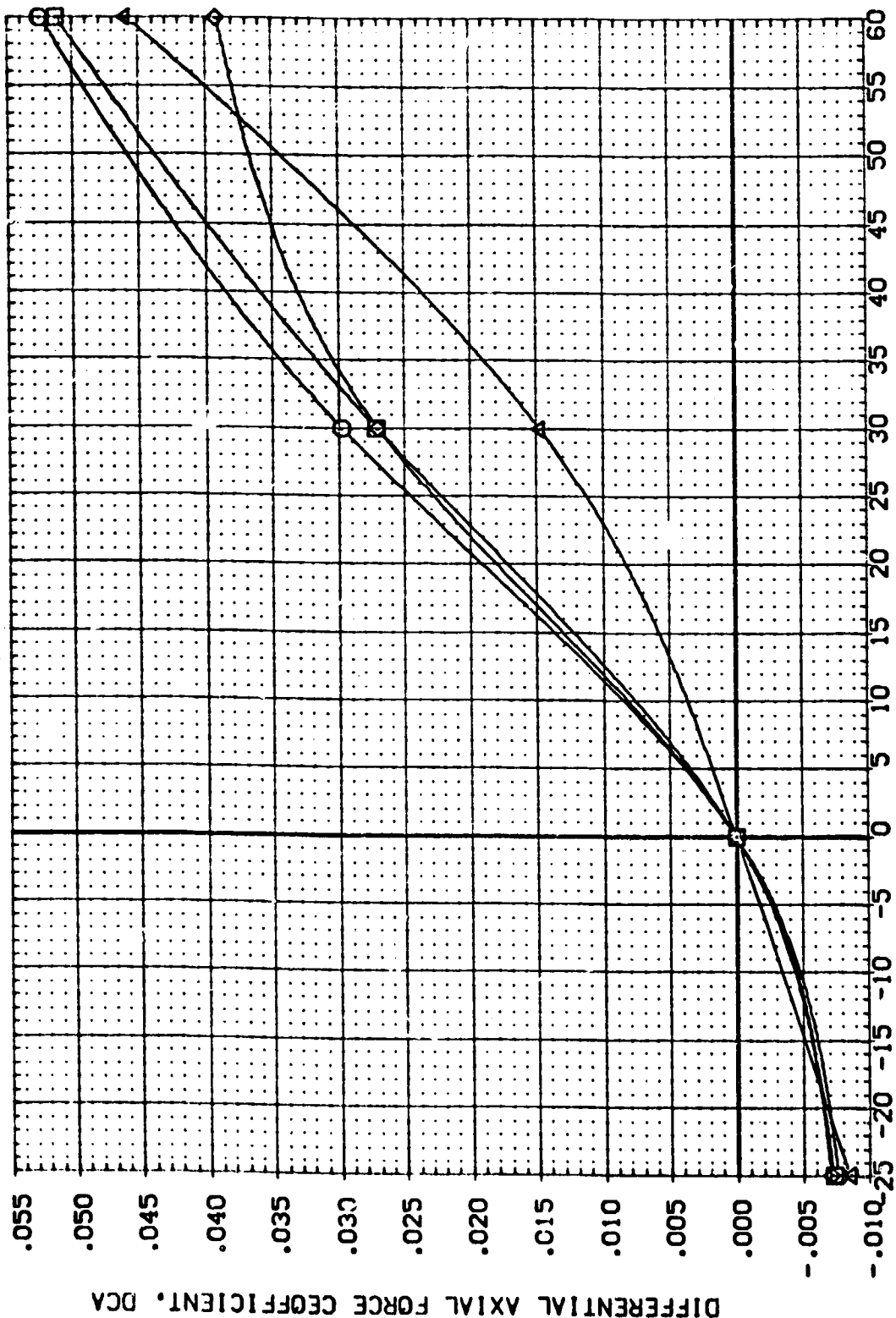


FIGURE 27 0638 ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

0A17.LTPT138.0R82A.(B10C507F4 M3)(W87E18)(V5R5)(NPP026)

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	.000	RVL	.000	SREF 87.1560
□	10.000	ELEVON	.000	LREF 19.9245
◇	20.000	BOFLAP	.000	BREF 14.0502
△	30.000	BETA	.000	XREF 13.1469
			.000	YREF .0000
			.000	ZREF .0000
			.000	SCALE .0150



FIGURE 27 089B ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

QA17.LTPT138.CR82A.(B10C507F4 M3)(W87E18)(V5R5)(NPP026)

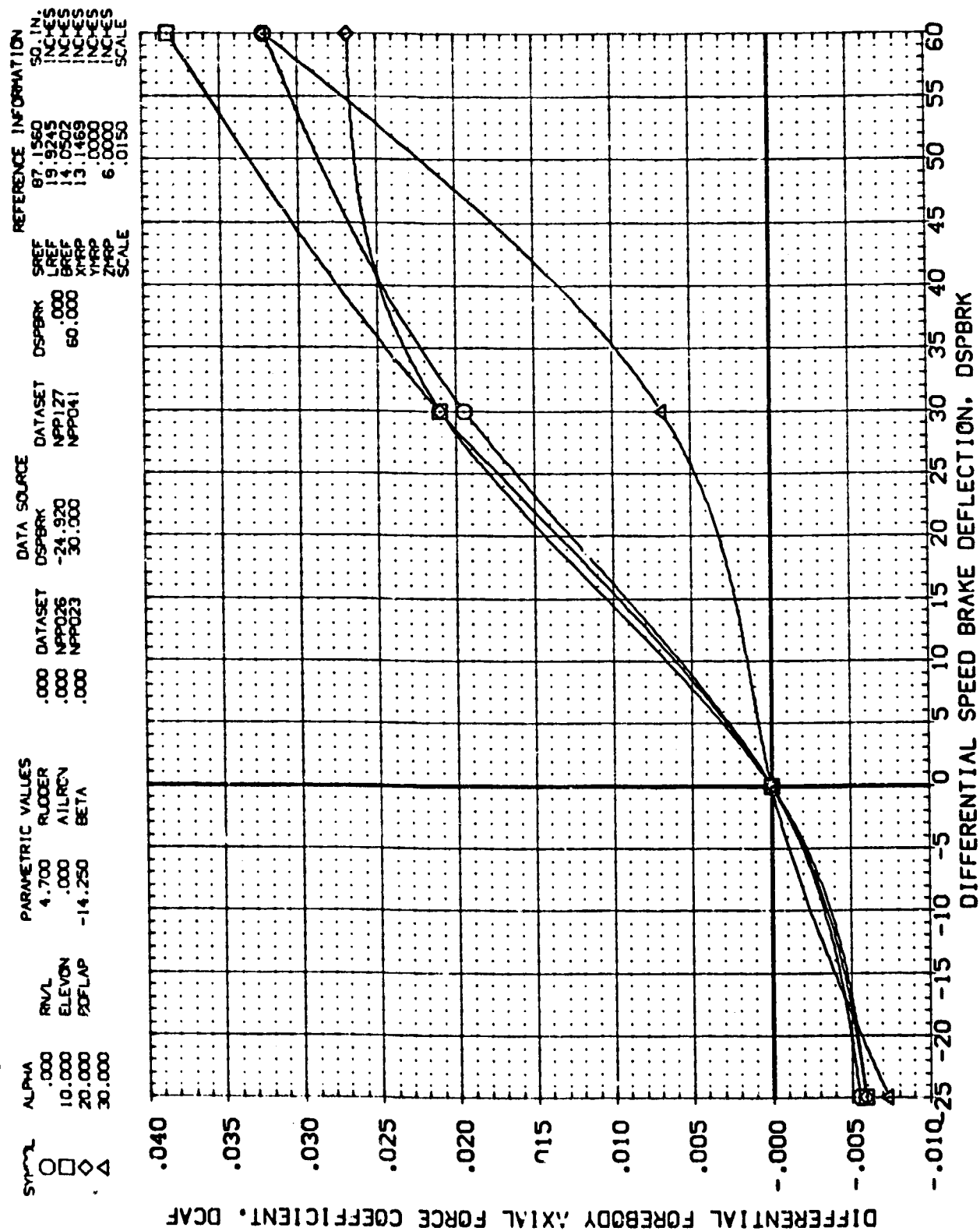
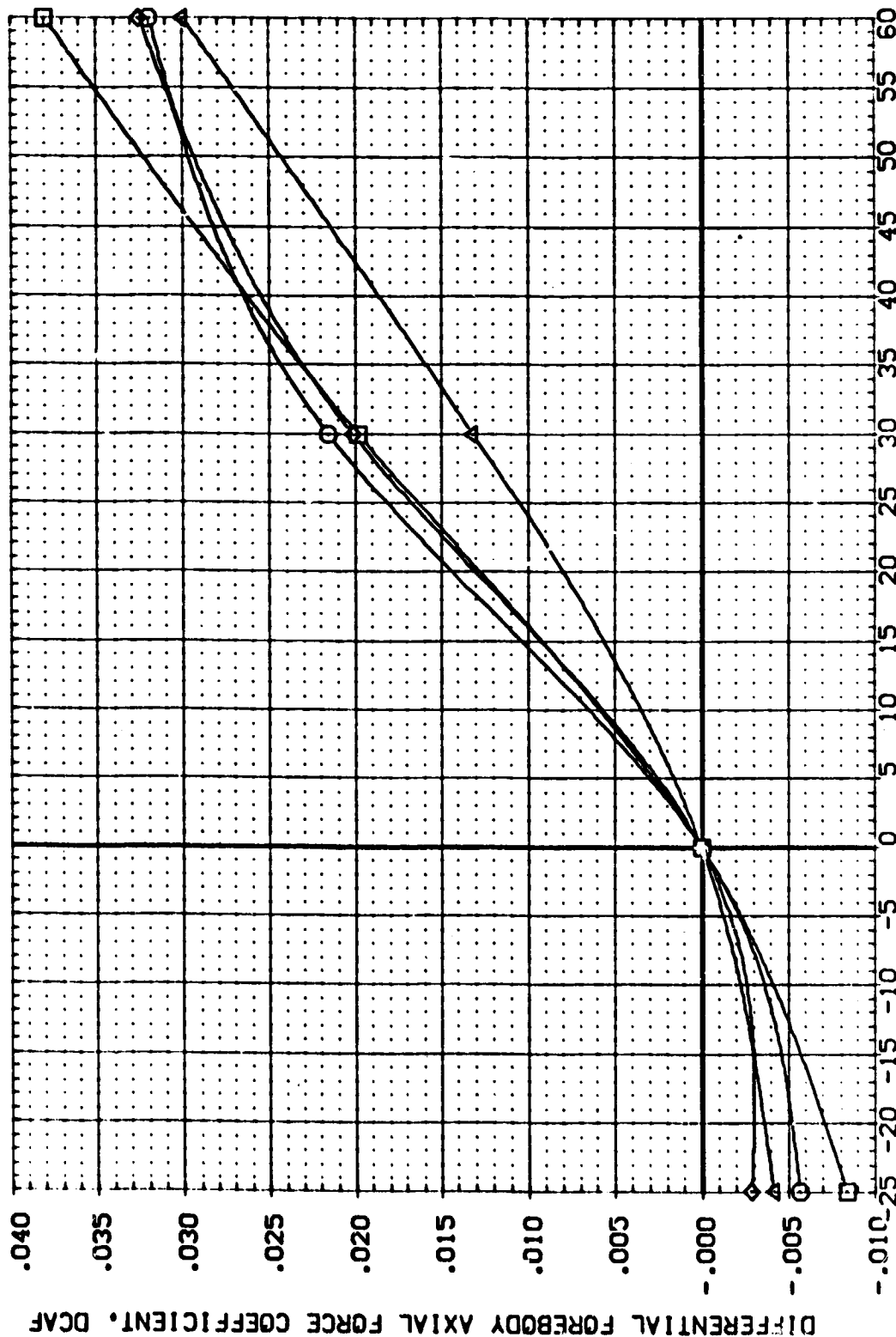


FIGURE 27 0898 ORBITER SPEED DEFLECTION INCREMENTAL EFFECTS



GA17.LTPT138.0RB2A.(B10C507F4 M3)(W87E18)(V5R5)(NPP026)

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	.000	RVL	DSPBRK	SREF
□	10.000	RUDDER	DSPBRK	LREF
◇	20.000	ELEVON	DSPBRK	BREF
△	30.000	BOFLAP	DSPBRK	YMRP
			DSPBRK	ZMRP
			DSPBRK	SCALE
			DSPBRK	50. IN.
			DSPBRK	19.9245 INCHES
			DSPBRK	14.0502 INCHES
			DSPBRK	13.1469 INCHES
			DSPBRK	.0000 INCHES
			DSPBRK	6.0000 INCHES
			DSPBRK	.0150 INCHES



DIFFERENTIAL SPEED BRAKE DEFLECTION. DSPBRK
DIFFERENTIAL FOREBODY AXIAL FORCE COEFFICIENT. DCAF

0A17.LIPT138.0RB2A.(B10C5D7F4 M3)(W87E18)(V5R5)(NPP026)

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
□	.00	RNVL	DSPBRK	SREF
◇	10.00	ELEVON	DSPBRK	LREF
◇	20.00	BOFLAP	DSPBRK	BREF
◇	30.00		DSPBRK	XMRP
			DSPBRK	YMRP
			DSPBRK	ZMRP
			DSPBRK	SCALE

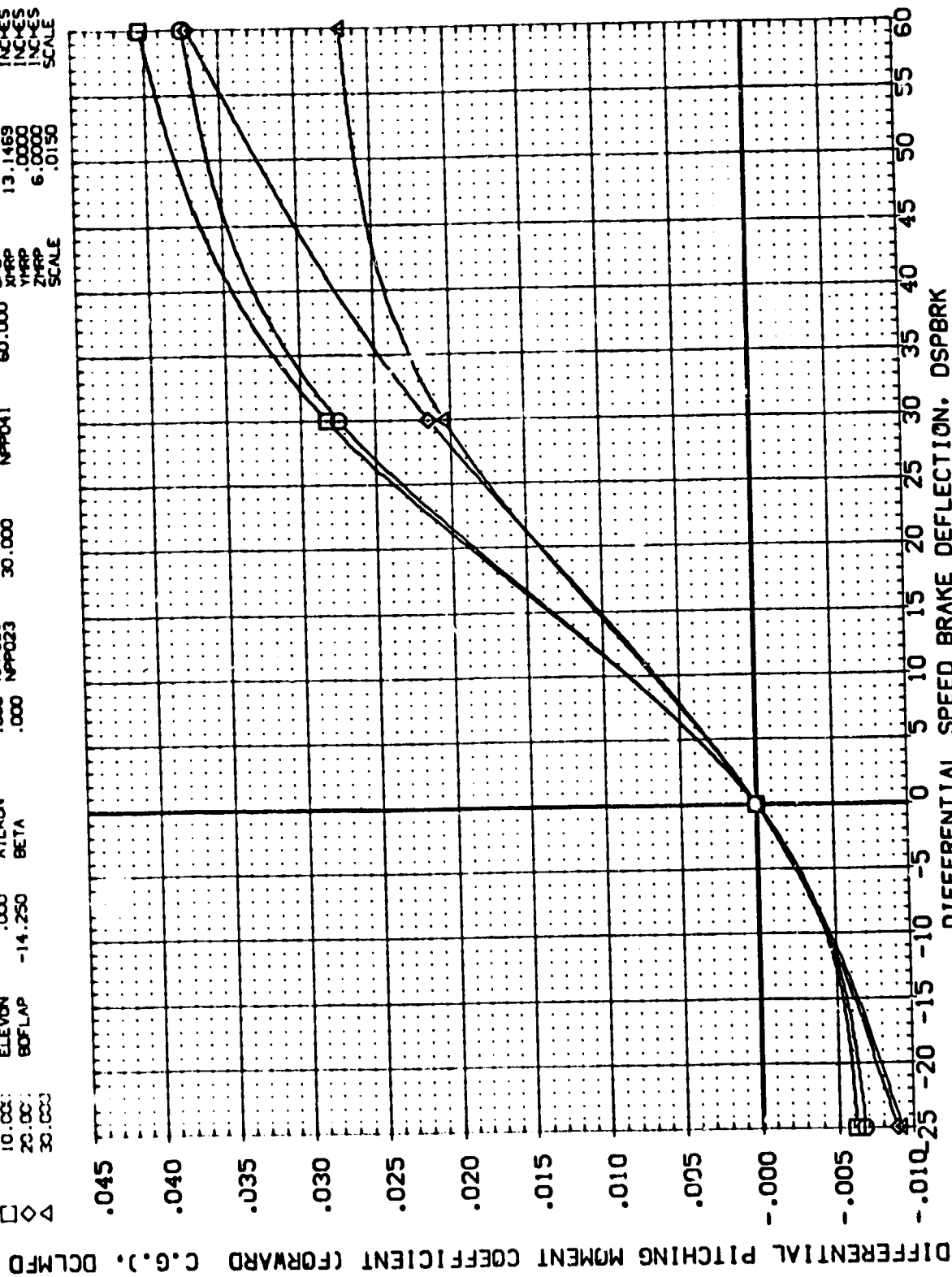


FIGURE 27 089B ORBITTER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

11-11-68
 11-11-68
 11-11-68
 11-11-68
 11-11-68

0117.LTPT138.0R82A.(B10C507F4 M3)(W87E18)(V5R5)(NPP026)

SYMBOL	ALPHA	RVL	ELEVON	BOFLAP	PARAMETRIC VALUES	DATA SOURCE	DATASET	DSPBRK	DATASET	DSPBRK	SREF	REFERENCE INFORMATION
□	.000	10.000	10.000	10.000	RUDDER	DSPBRK	NPP026	-24.920	NPP127	.000	87.1560	50. IN.
◇	10.000	.000	.000	.000	AILRON	30.000	NPP023	30.000	NPP041	60.000	19.9245	INCHES
△	20.000	-14.250	BETA								14.0502	INCHES
	30.000										13.1469	INCHES
											.0000	INCHES
											6.0000	INCHES
											.0150	SCALE

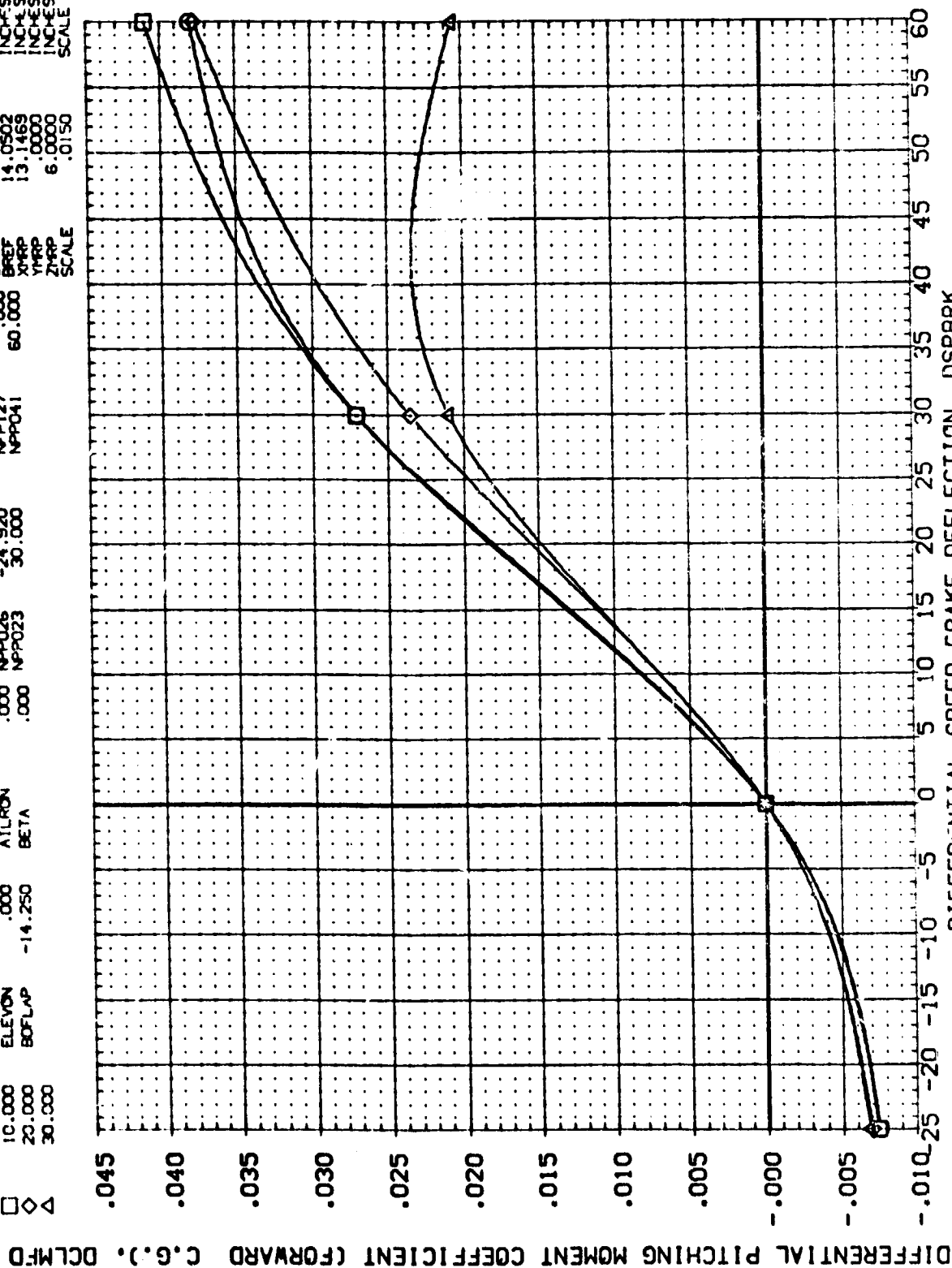


FIGURE 27 089B ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

0A17.LTPT138.0RB2A.(B10C507F4 M3)(W87E18)(V5R5)(NPP026)

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	.000	RUDDER	DSBRK	SREF 87.1560
□	10.000	ELEVON	DSBRK	LRREF 19.9245
◇	20.000	BOFLAP	DSBRK	BRREF 14.0502
△	30.000	BETA	DSBRK	XRRP 13.1469
			DSBRK	YRRP .0000
			DSBRK	ZRRP .0000
			DSBRK	SCALE .0150

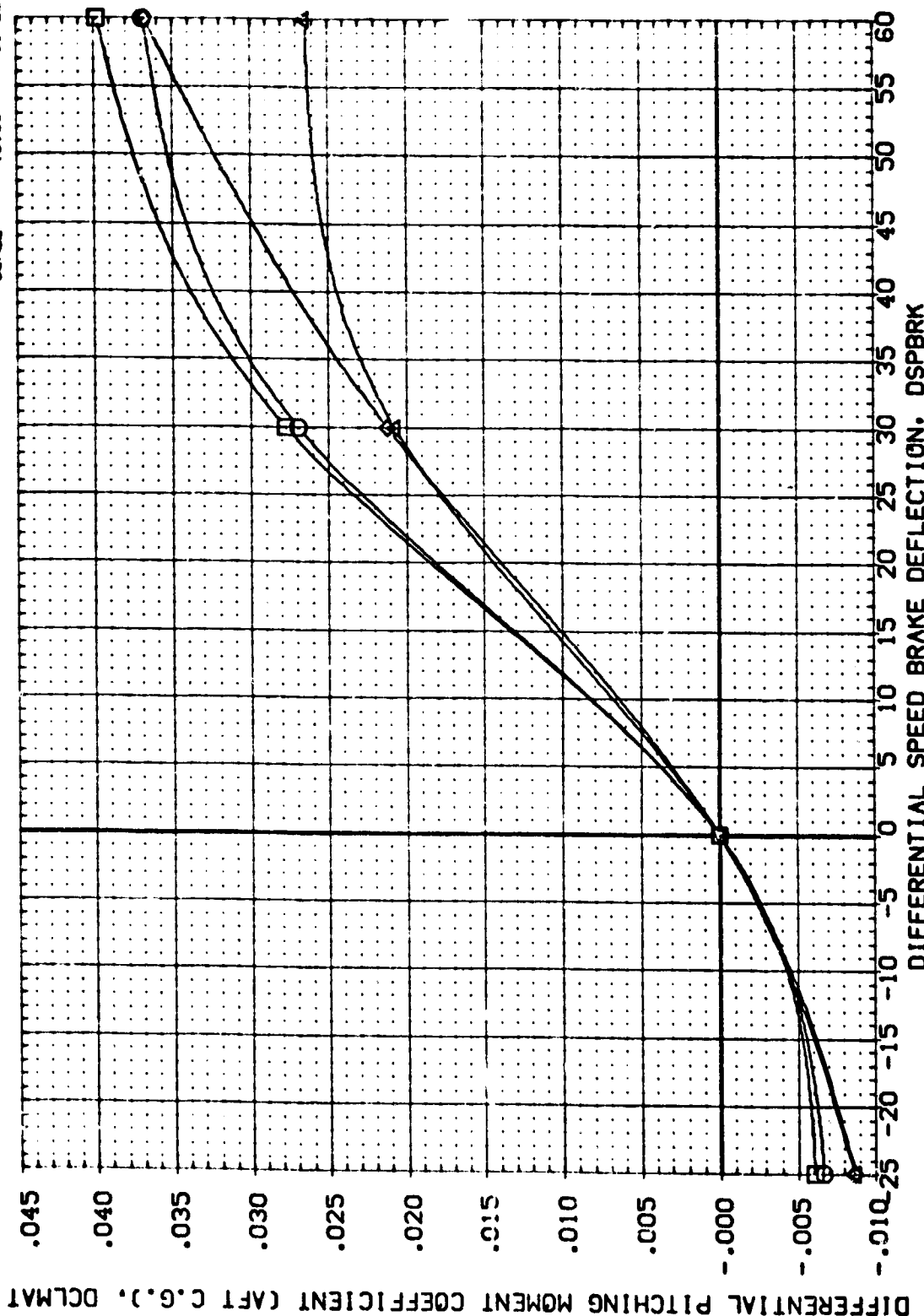


FIGURE 27 089B ORBITER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS



CA17.LTPT138.0R82A.(B10C5D7F4 M3)(W87E18)(V5R5)(NPP026)

SYMBOL	ALPHA	RN/L	ELEVON	BD/FLAP	PARAMETRIC VALUES	DATA SOURCE	DSPBRK	DSPBRK	REFERENCE INFORMATION
○	.000	10.000	.000	10.000	RUDDER	.000	NPP026	.000	SREF 87.1560 INCHES
□	10.000	.000	.000	.000	AILTRN	.000	NPP027	.000	LREF 19.9245 INCHES
◇	20.000	-14.250	.000	.000	BETA	.000	NPP041	60.000	BREF 14.0502 INCHES
△	30.000					.000	NPP023		YMRP 13.1469 INCHES
									ZMRP .0000 INCHES
									SCALE 6.0000 INCHES
									SCALE .0150 INCHES

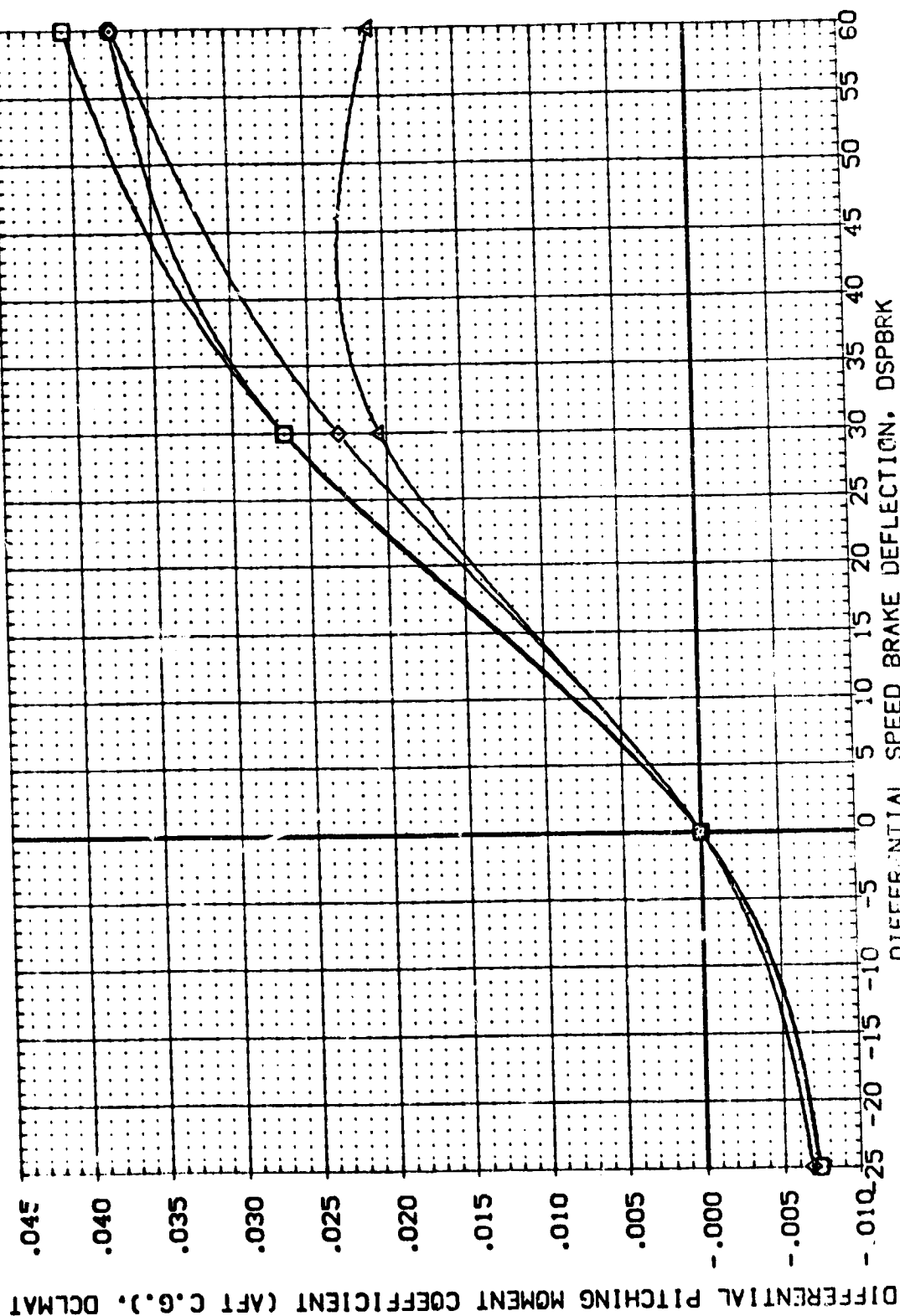


FIGURE 27 0898 0R01TER SPEED BRAKE DEFLECTION INCREMENTAL EFFECTS

DATA SET SYMBOL CONFIGURATION DESCRIPTION BETA RUDDER SPOILER AILERON REFERENCE INFORMATION

Q17.LTPT138.ORB2A.(B)DC507F4 M31(V87E18)(V5R5) .000 .000 24.920 .000 SREF 87.1560 50. IN.

DATA NOT AVAILABLE .000 .000 24.920 .000 LREF 19.9245 INCHES

Q17.LTPT138.ORB2A.(B)DC507F4G1M31(V87E18)(V5R5) -.000 .000 24.920 .000 BREF 14.0502 INCHES

Q17.LTPT138.ORB2A.(B)DC507F4G1M31(V87E18)(V5R5) -.000 .000 24.920 .000 XREF 13.1469 INCHES

Q17.LTPT138.ORB2A.(B)DC507F4G1M31(V87E18)(V5R5) -.000 .000 24.920 .000 YREF 6.0000 INCHES

Q17.LTPT138.ORB2A.(B)DC507F4G1M31(V87E18)(V5R5) -.000 .000 24.920 .000 ZREF 6.0150 INCHES

Q17.LTPT138.ORB2A.(B)DC507F4G1M31(V87E18)(V5R5) -.000 .000 24.920 .000 SCALE .0150 INCHES

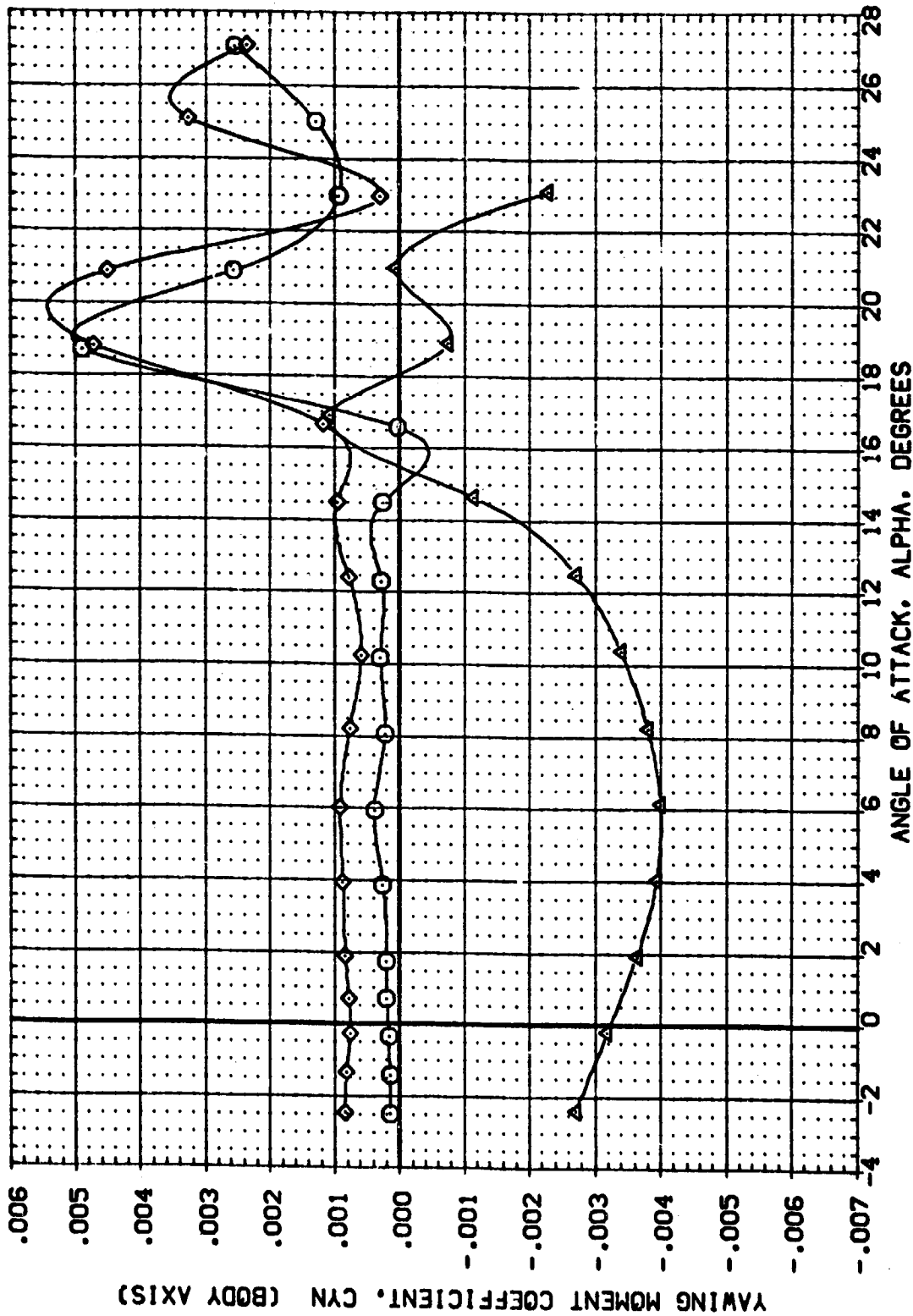


FIGURE 28 0898 ORBITER LATERAL DIRECTIONAL YAW POLAR

(A)RN/L = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	RUDER	SPOILER	AILERON	REFERENCE INFORMATION
(RPP027)	DA17.LTPT138.DR82A.(810C507F4	.000	.000	24.920	.000	SRF 87.1560
(RPP045)	DATA NOT AVAILABLE	-5.000	.000	24.920	.000	LAUF 19.8245
(RPP043)	DA17.LTPT138.DR82A.(810C507F4G1N3)	.000	.000	24.920	.000	SRF 14.0502
(RPP044)	DA17.LTPT138.DR82A.(810C507F4G1N3)	-5.000	.000	24.920	.000	LAUF 13.1459
						SRF 6.0000
						LAUF 6.0000
						SRF .0150
						LAUF SCALE

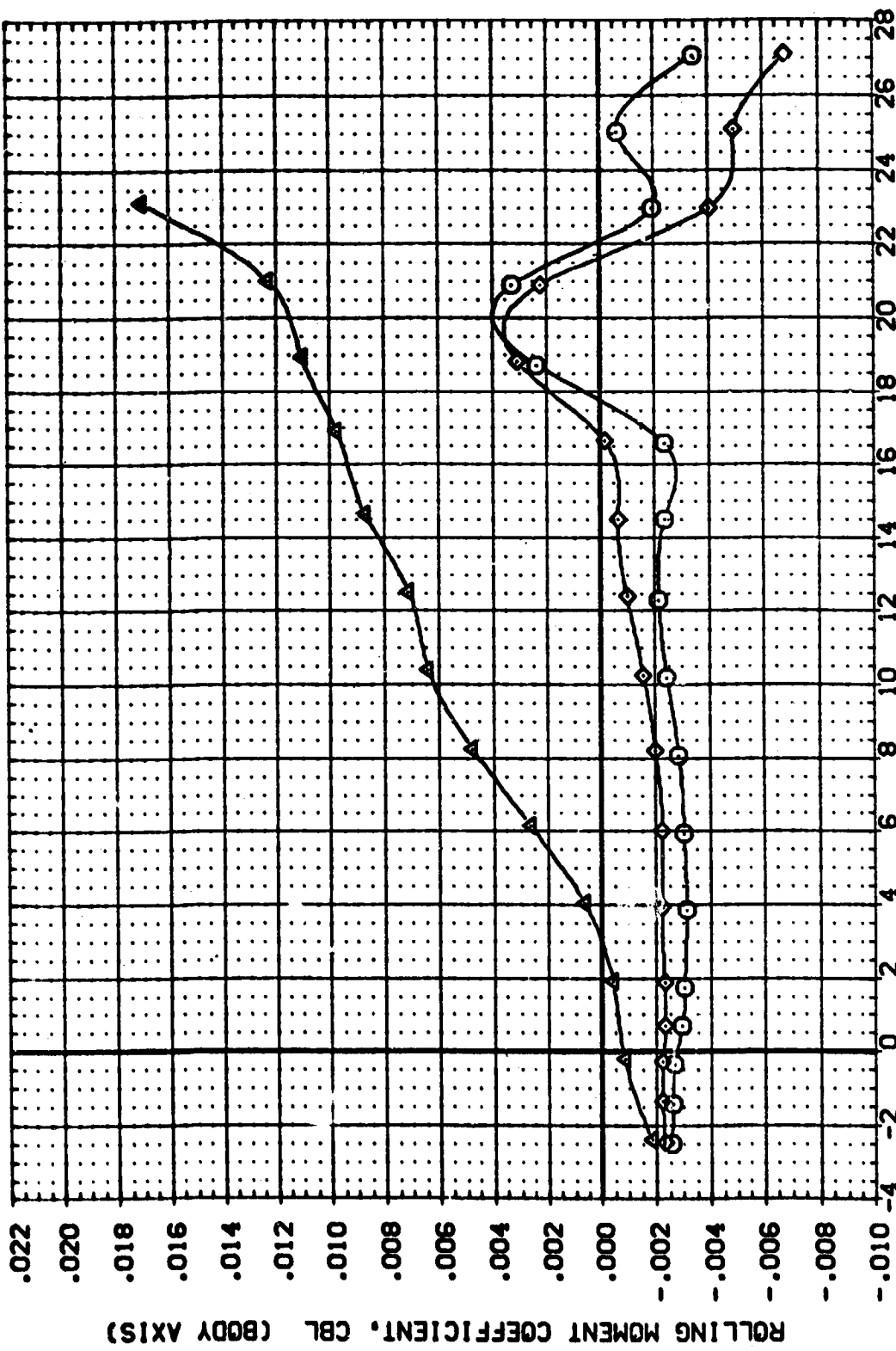
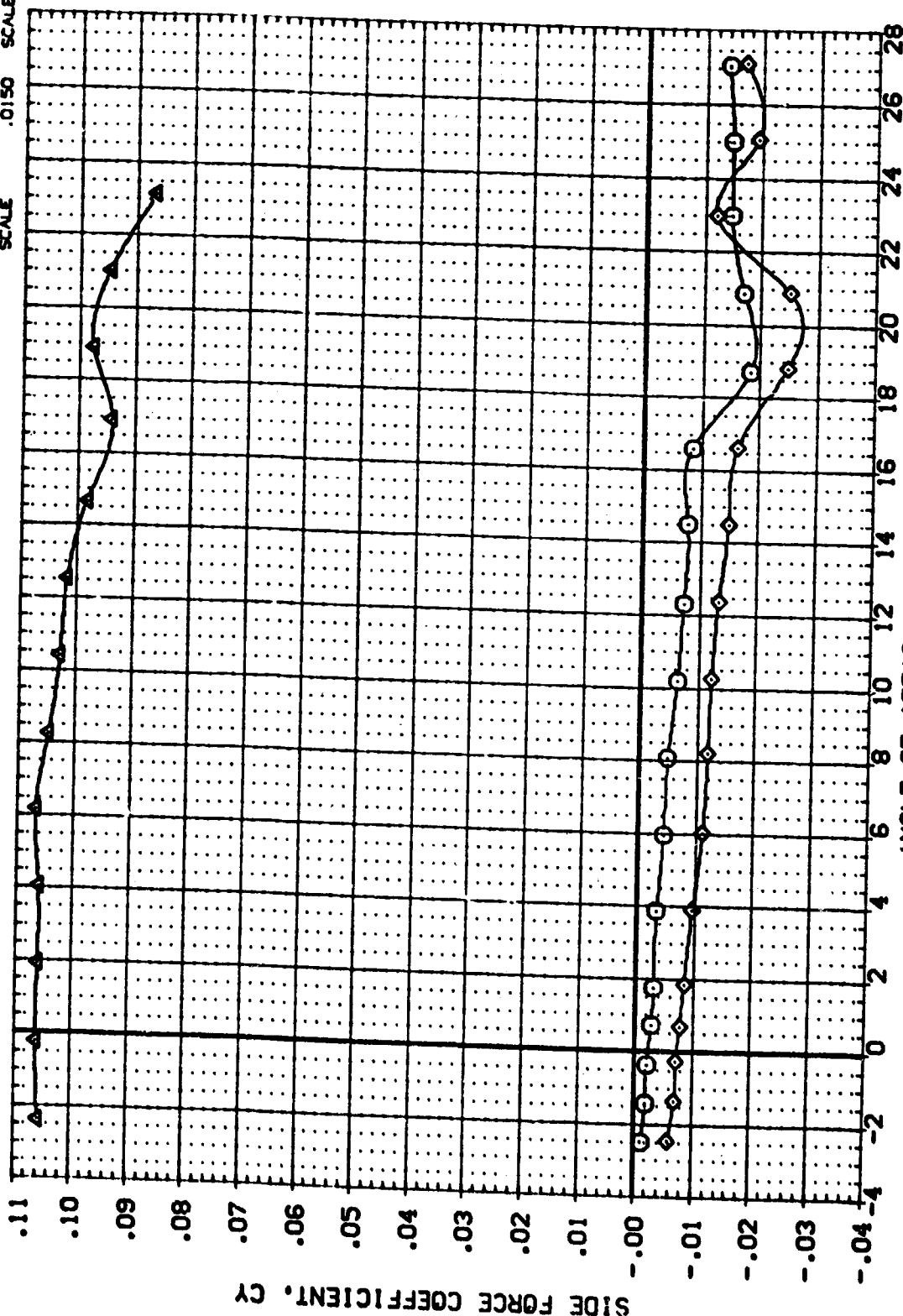


FIGURE 28 0898 ORBITER LATERAL DIRECTIONAL YAW POLAR

(AJRN/L = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ALUDDR	SPDRBK	AIRLON	REFERENCE INFORMATION
(RPP027)	DA17.LTPT138.DR82A.(B10C507F4 MG)(V87E18)(V5RS)	.000	.000	24.920	.000	SRF 87.1560 SO.IN
(RPP045)	DATA NOT AVAILABLE	-5.000	.000	24.920	.000	LREF 19.9245 INCHES
(RPP043)	DA17.LTPT138.DR82A.(B10C507F461MG)(V87E18)(V5RS)	.000	.000	24.920	.000	SRF 14.0502 INCHES
(RPP044)	DA17.LTPT138.DR82A.(B10C507F461MG)(V87E18)(V5RS)	-5.000	.000	24.920	.000	XPRP 13.1463 INCHES
						YPRP .0000 INCHES
						ZPRP 6.0000 INCHES
						SCALE .0150



ANGLE OF ATTACK, ALPHA, DEGREES

FIGURE 28 0898 ORBITER LATERAL DIRECTIONAL YAW POLAR

(A)RN/L = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	RUDDER	SPEED	ALL-RON	REFERENCE INFORMATION
(RPP027)	DA17.LTPT138.DR82A.(810C507F4	.000	.000	24.920	.000	SRF 07.1950 50. IN.
(RPP043)	DA17.LTPT138.DR82A.(810C507F4	-5.000	.000	24.920	.000	LINE 19.9245 INC-E5
(RPP043)	DA17.LTPT138.DR82A.(810C507F4G	.000	.000	24.920	.000	SRF 14.0502 INC-E5
(RPP044)	DA17.LTPT138.DR82A.(810C507F4G	-5.000	.000	24.920	.000	SRF 13.1463 INC-E5
						YRPP 6.0000 INC-E5
						ZRPP 6.0000 INC-E5
						SCALE .0150 SCALE

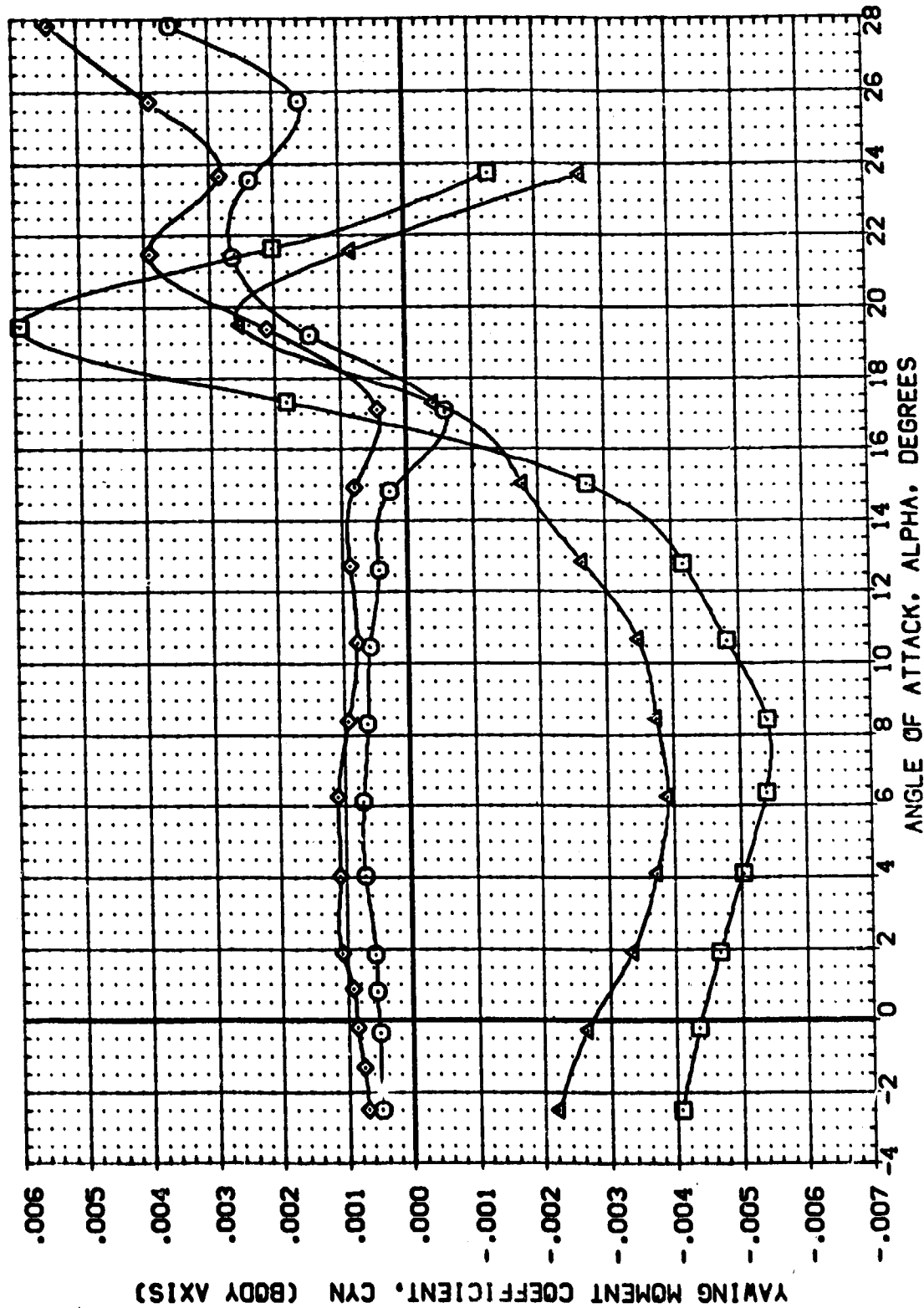


FIGURE 28 089B ORBITER LATERAL DIRECTIONAL YAW POLAR

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	RUDDER	SPOILER	AILERON	REFERENCE INFORMATION
(RPP077)	DA17.LTPT138.DR82A.(B10C507F4 M31(V87E18)(V5RS)	.000	.000	24.920	.000	SREF 87.1560 SQ. IN.
(RPP045)	DA17.LTPT138.DR82A.(B10C507F4 M31(V87E18)(V5RS)	-5.000	.000	24.920	.000	LREF 19.9245 INCHES
(RPP043)	DA17.LTPT138.DR82A.(B10C507F4G1M31(V87E18)(V5RS)	.000	.000	24.920	.000	BREF 14.0502 INCHES
(RPP044)	DA17.LTPT138.DR82A.(B10C507F4G1M31(V87E18)(V5RS)	-5.000	.000	24.920	.000	XMRP 13.1469 INCHES
						ZMRP .0000 INCHES
						SCALE 6.0000 INCHES
						SCALE .0150

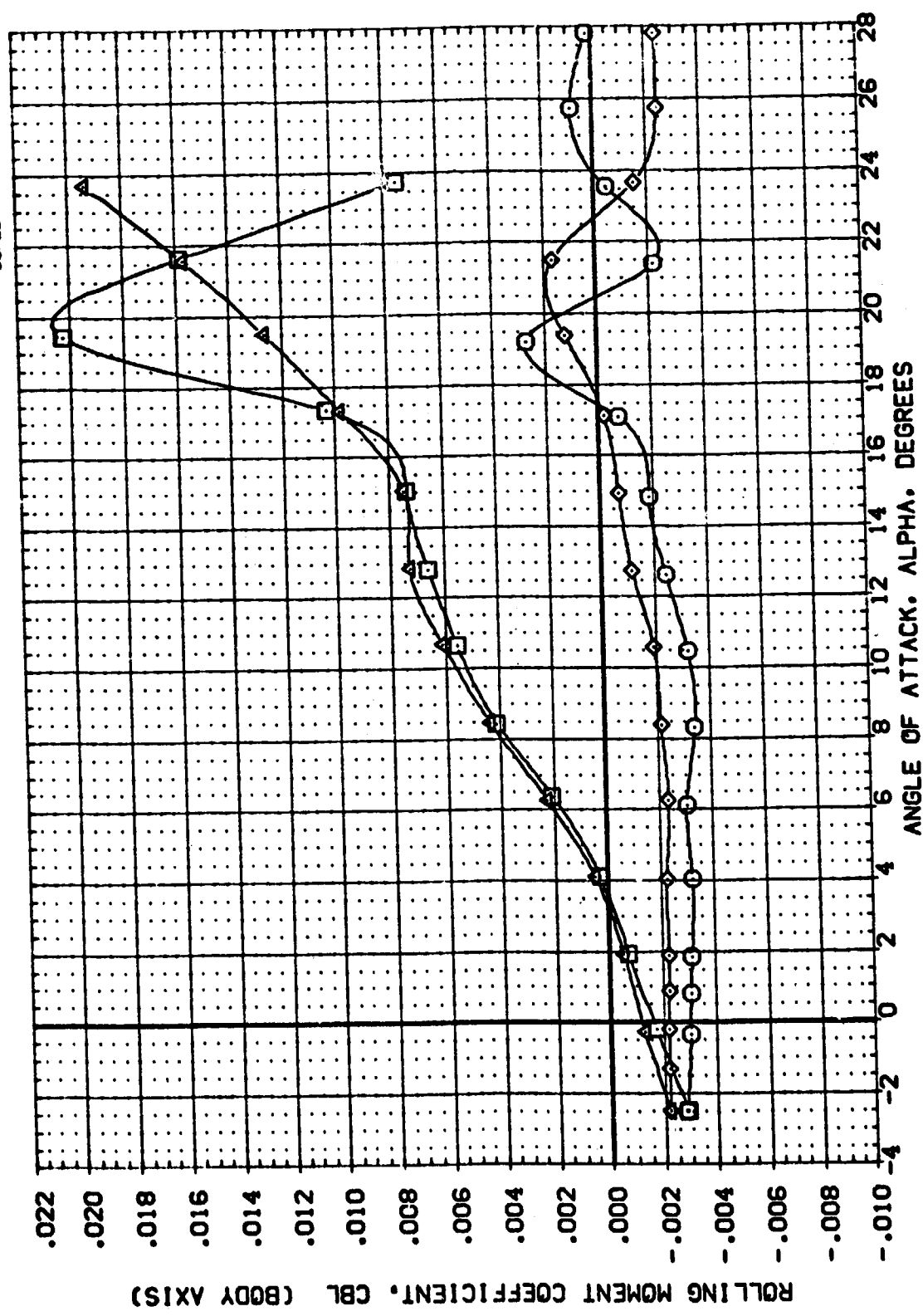


FIGURE 28 C89B ORBITER LATERAL DIRECTIONAL YAW POLAR

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	RUDDER	SPORON	AILERON	REFERENCE INFORMATION
(RPP027)	DA17.LTPT138.DR82A.(810C507F4 MG11V87E181)(VSR5)	.000	.000	24.920	.000	SRF 87.1560 SO IN
(RPP045)	DA17.LTPT138.DR82A.(810C507F4 MG11V87E181)(VSR5)	-5.000	.000	24.920	.000	REF 19.3245 INCHES
(RPP043)	DA17.LTPT138.DR82A.(810C507F4 MG11V87E181)(VSR5)	.000	.000	24.920	.000	REF 14.0502 INCHES
(RPP044)	DA17.LTPT138.DR82A.(810C507F4 MG11V87E181)(VSR5)	-5.000	.000	24.920	.000	REF 13.1463 INCHES
						YPRP .0000 INCHES
						ZPRP 6.0000 INCHES
						SCALE .0150

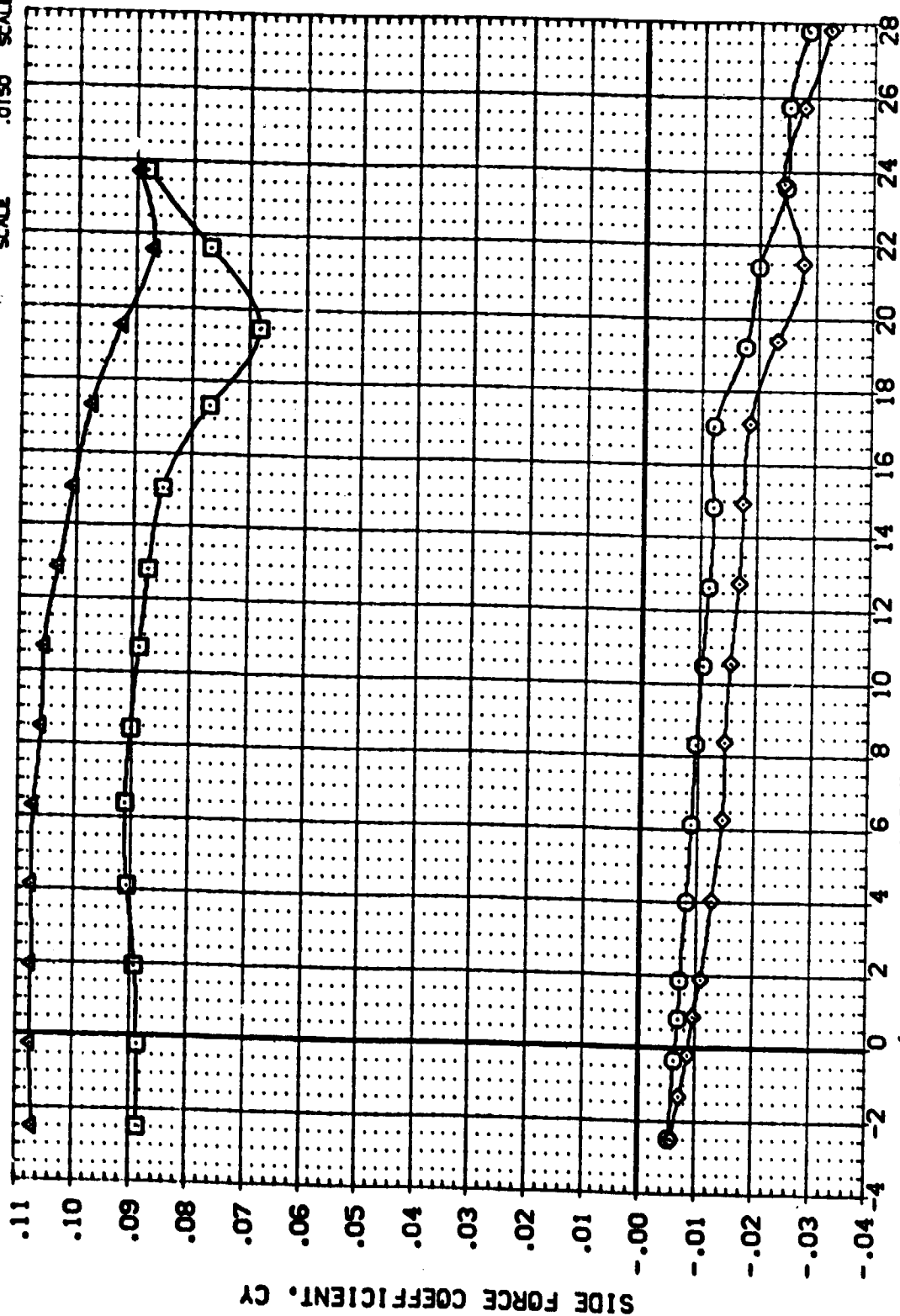


FIGURE 28 0898 ORBITER LATERAL DIRECTIONAL YAW POLAR

(AJRN/L = 4.70

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		BETA		RUDDER		SPDGRK		AILRON		REFERENCE INFORMATION	
(RPP027)	DA17-LTPT138-0882A	(B10C507F4	H3)(V87E18)(V595)	.000	.000	.000	24.920	.000	SREF	87.1560	50. IN.		
(RPP045)	DA17-LTPT138-0882A	(B10C507F4	H3)(V57E18)(V595)	-5.000	.000	.000	24.920	.000	LREF	19.9245	INCHES		
(RPP043)	DA17-LTPT138-0882A	(B10C507F4	H3)(V87E18)(V595)	.000	.000	.000	24.920	.000	BREF	14.0502	INCHES		
(RPP044)	DA17-LTPT138-0882A	(B10C507F4	H3)(V87E18)(V595)	-5.000	.000	.000	24.920	.000	VREF	13.1469	INCHES		
									ZREF	6.0000	INCHES		
									SCALE	.0150	SCALE		

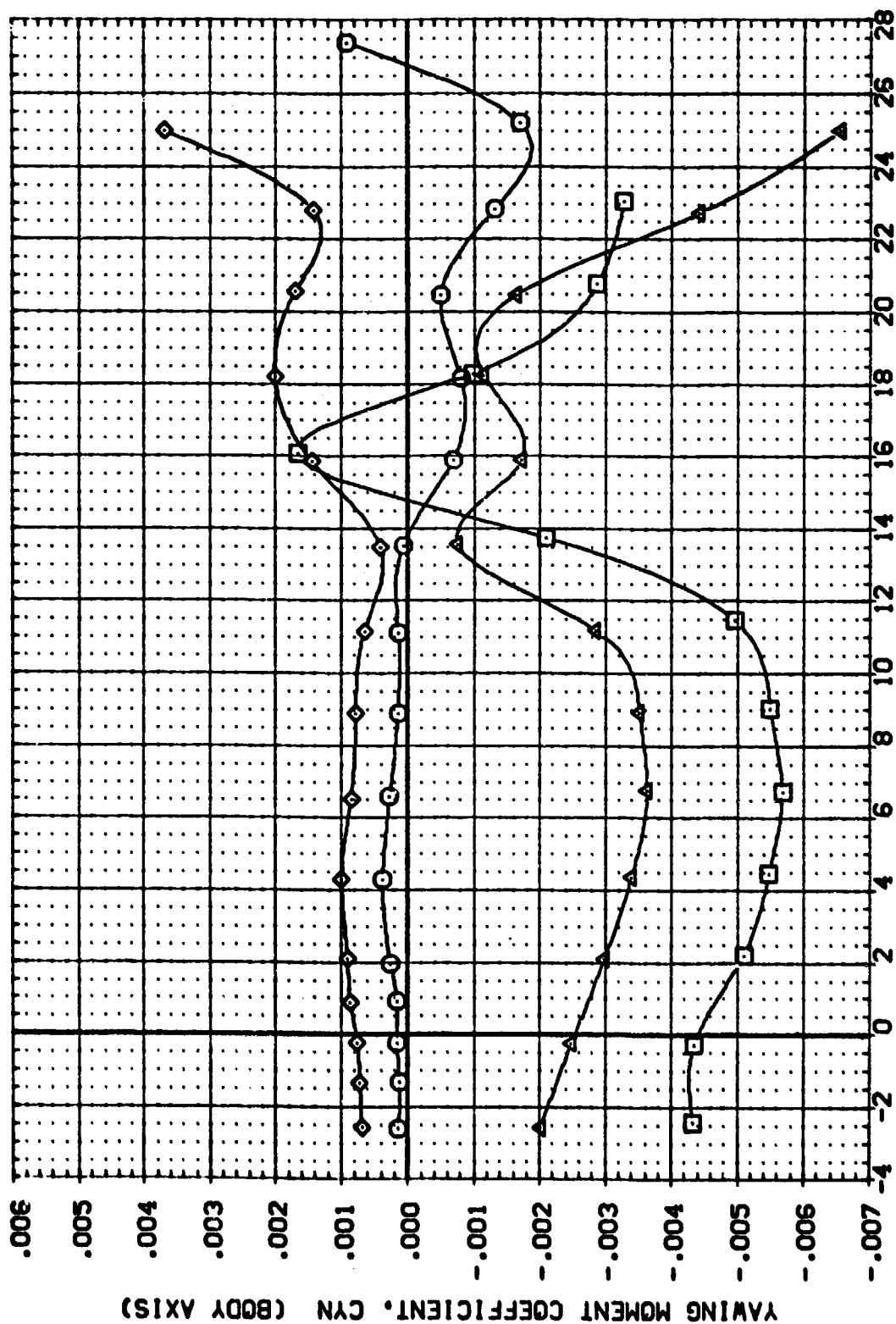


FIGURE 28 0898 ORBITER LATERAL DIRECTIONAL YAW POLAR

(AJRN/L = 10.00



DATA SET SYMOL	CONFIGURATION DESCRIPTION	BETA	RUDER	SPORK	AILRON	REFERENCE INFORMATION
(RPP027)	DA17.LTPT138.ORB2A.(81DC507F4	.000	.000	24.920	.000	SRF 87.1560 50. IN
(RPP045)	DA17.LTPT138.ORB2A.(81DC507F4	-5.000	.000	24.920	.000	SRF 19.9245 INCHES
(RPP043)	DA17.LTPT138.ORB2A.(81DC507F4G1P3)	.000	.000	24.920	.000	SRF 14.0502 INCHES
(RPP044)	DA17.LTPT138.ORB2A.(81DC507F4G1P3)	-5.000	.000	24.920	.000	SRF 13.1469 INCHES
						YRPP 6.0000 INCHES
						SCALE .01 1

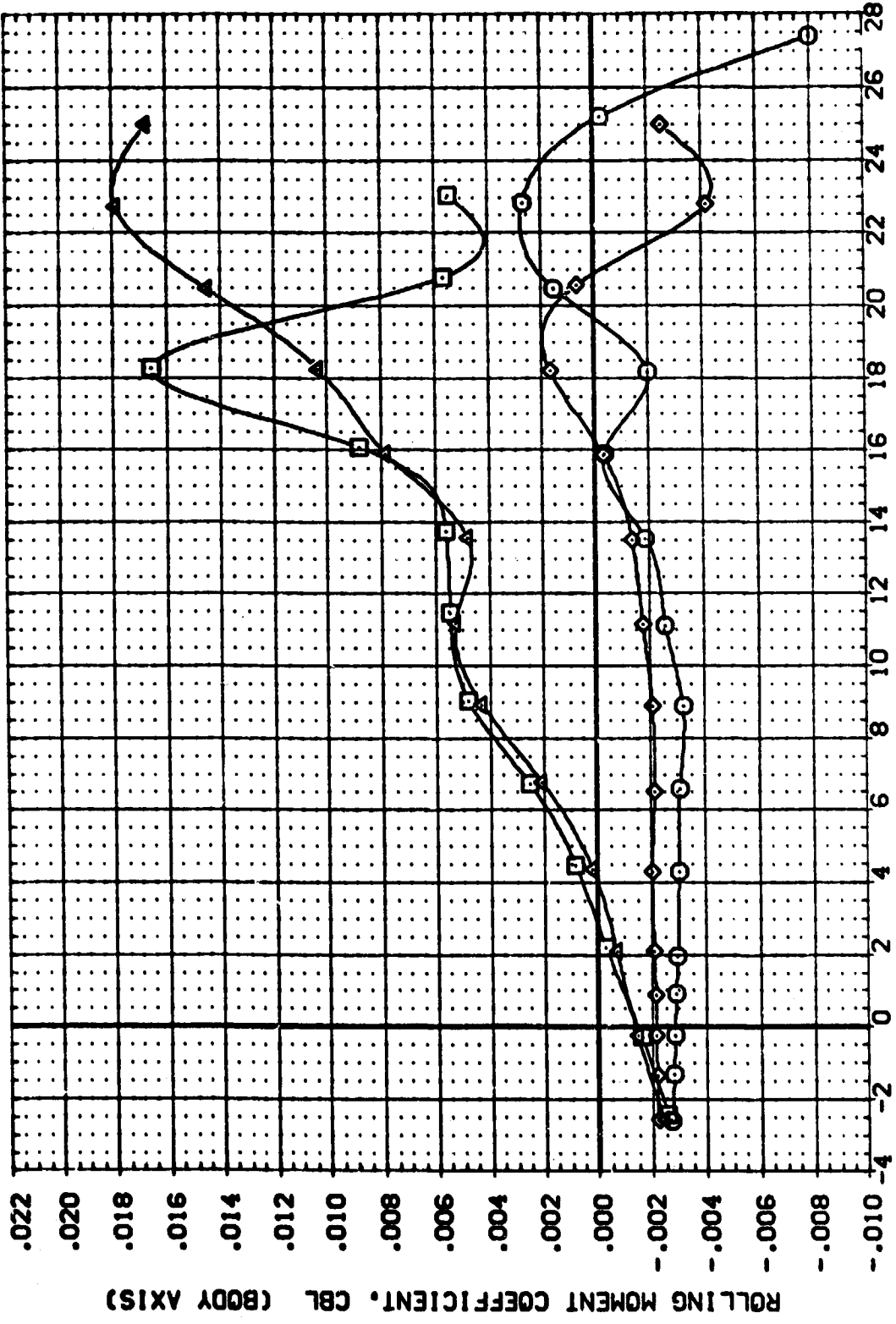


FIGURE 28 0898 ORBITER LATERAL DIRECTIONAL YAW POLAR

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	RUDDER	SPD80K	AIRTON	REFERENCE INFORMATION
(RPP027)	DA17.L1PT138.082A.(810C507F4	.000	.000	24.520	.000	SREF 97.1560
(RPP045)	DA17.L1PT138.082A.(810C507F4	-5.000	.000	24.520	.000	LREF 19.5245
(RPP043)	DA17.L1PT138.082A.(810C507F4G1NG	.000	.000	24.520	.000	BREF 14.0502
(RPP044)	DA17.L1PT138.082A.(810C507F4G1NG	-5.000	.000	24.520	.000	XREF 13.1465
						YREF .0000
						ZREF .0000
						SCALE .0150

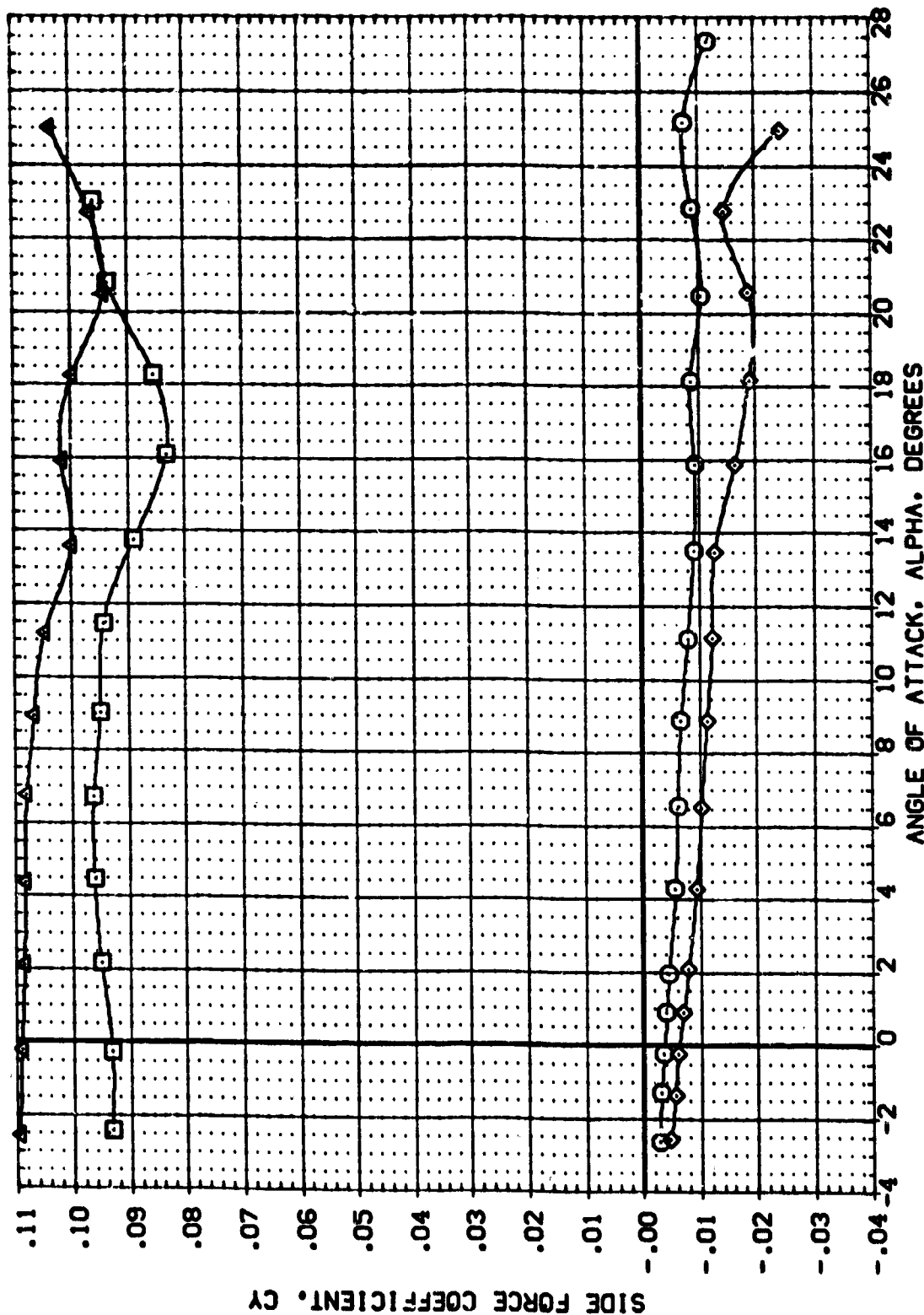


FIGURE 28 0898 ORBITER LATERAL DIRECTIONAL YAW POLAR

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLODER	SPDRK	ATLON	REFERENCE INFORMATION
(RPP027)	CA17,LTPT138,OR62A,(810C507F4	.000	.000	24.920	.000	SREF 87.1550
(RPP045)	DATA NOT AVAILABLE	-5.000	.000	24.920	.000	LRPF 19.9245
(RPP043)	CA17,LTPT138,OR62A,(810C507F4G1P3)	.000	.000	24.920	.000	BRPF 14.0502
(RPP044)	CA17,LTPT138,OR62A,(810C507F4G1P3)	-5.000	.000	24.920	.000	YRPF 13.1469
						ZRPF 6.0000
						SCALE .0150

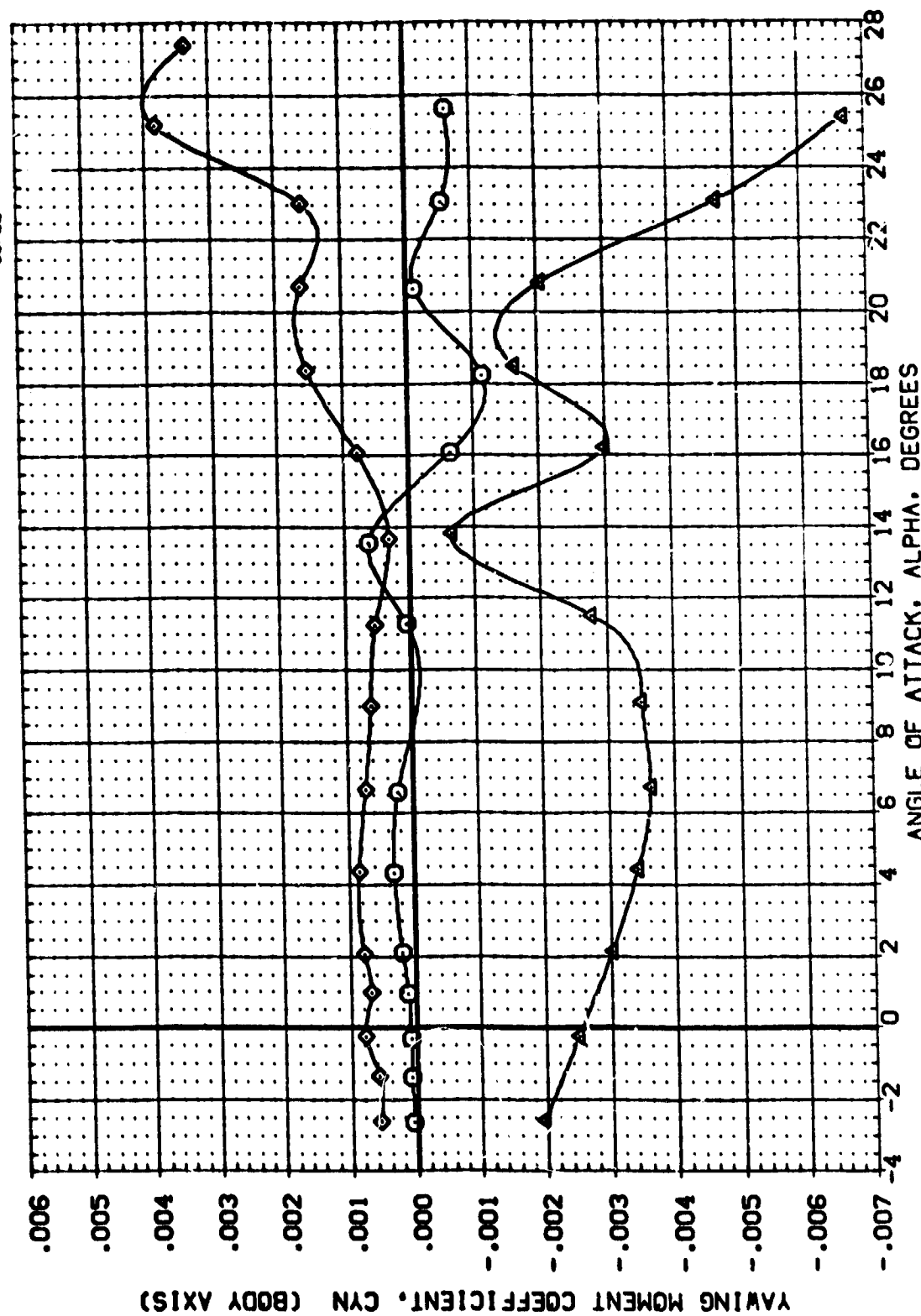


FIGURE 28 089B ORBITER LATERAL DIRECTIONAL YAW POLAR

(A)RN/L = 12.50

DATA SET SYMBOL. CONFIGURATION DESCRIPTION
 (RPP027) QAL17.L1PT138.DR82A.(810C507F4 N3)(V87E18)(V5R5)
 (RPP045) DATA NOT AVAILABLE
 (RPP043) QAL17.L1PT138.DR82A.(810C507F4G1N3)(V87E18)(V5R5)
 (RPP044) QAL17.L1PT138.DR82A.(810C507F4G1N3)(V87E18)(V5R5)

BETA RUDDER SPOBRK AILDRON REFERENCE INFORMATION
 .000 .000 24.920 .000 SREF 87.1560 SO.IN.
 -5.000 .000 24.920 .000 LREF 19.9245 INC-ES
 .000 .000 24.920 .000 BREF 14.0502 INC-ES
 .000 .000 24.920 .000 XMRP 13.1469 INC-ES
 .000 .000 24.920 .000 YMRP 6.0000 INC-ES
 .000 .000 24.920 .000 ZMRP 6.0000 INC-ES
 .000 .000 24.920 .000 SCALE .0150 SCALE

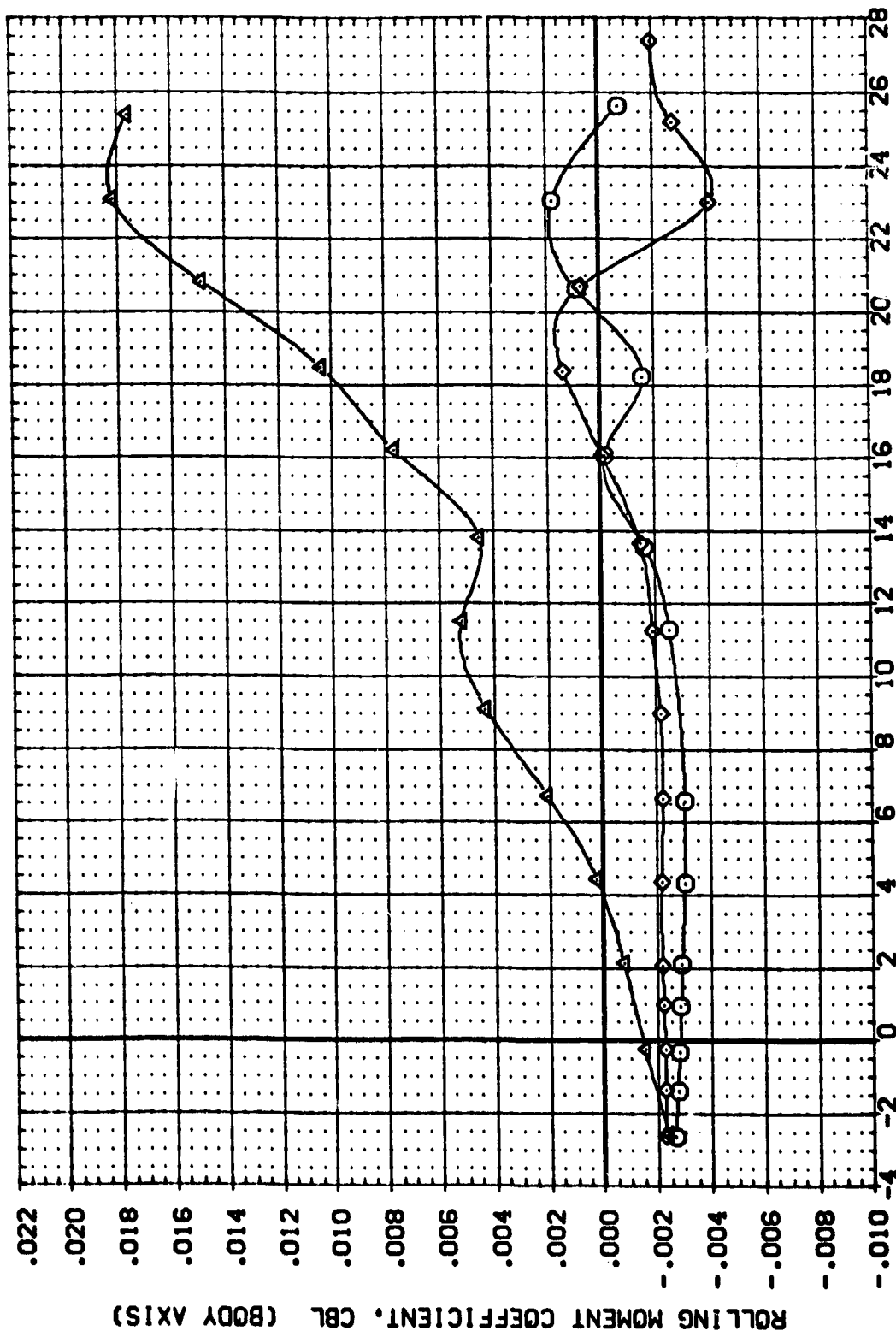



FIGURE 28 0898 ORBITER LATERAL DIRECTIONAL YAW POLAR

(A)RN/L = 12.50

DATA SET SYMBOL:  CONFIGURATION DESCRIPTION: CA17.LTPT138.CR82A.(B10C507F4 M3)(V87E18)(V5R5)
 (RPP027) DATA NOT AVAILABLE
 (RPP045) CA17.LTPT138.CR82A.(B10C507F4G1M3)(V87E18)(V5R5)
 (RPP043) CA17.LTPT138.CR82A.(B10C507F4G1M3)(V87E18)(V5R5)
 (RPP044) CA17.LTPT138.CR82A.(B10C507F4G1M3)(V87E18)(V5R5)

BETA: .000
 -5.000
 -5.000

RUDER: .000
 .000
 .000

SPOBRK: 24.920
 24.920
 24.920

AILRON: .000
 .000
 .000

REFERENCE INFORMATION: SREF 87.1560 90. IN.
 LREF 19.9245 INC-ES
 BREF 14.0502 INC-ES
 XRRP 13.1459 INC-ES
 YRRP 6.0000 INC-ES
 ZRRP 6.0000 INC-ES
 SCALE .0150 SCALE

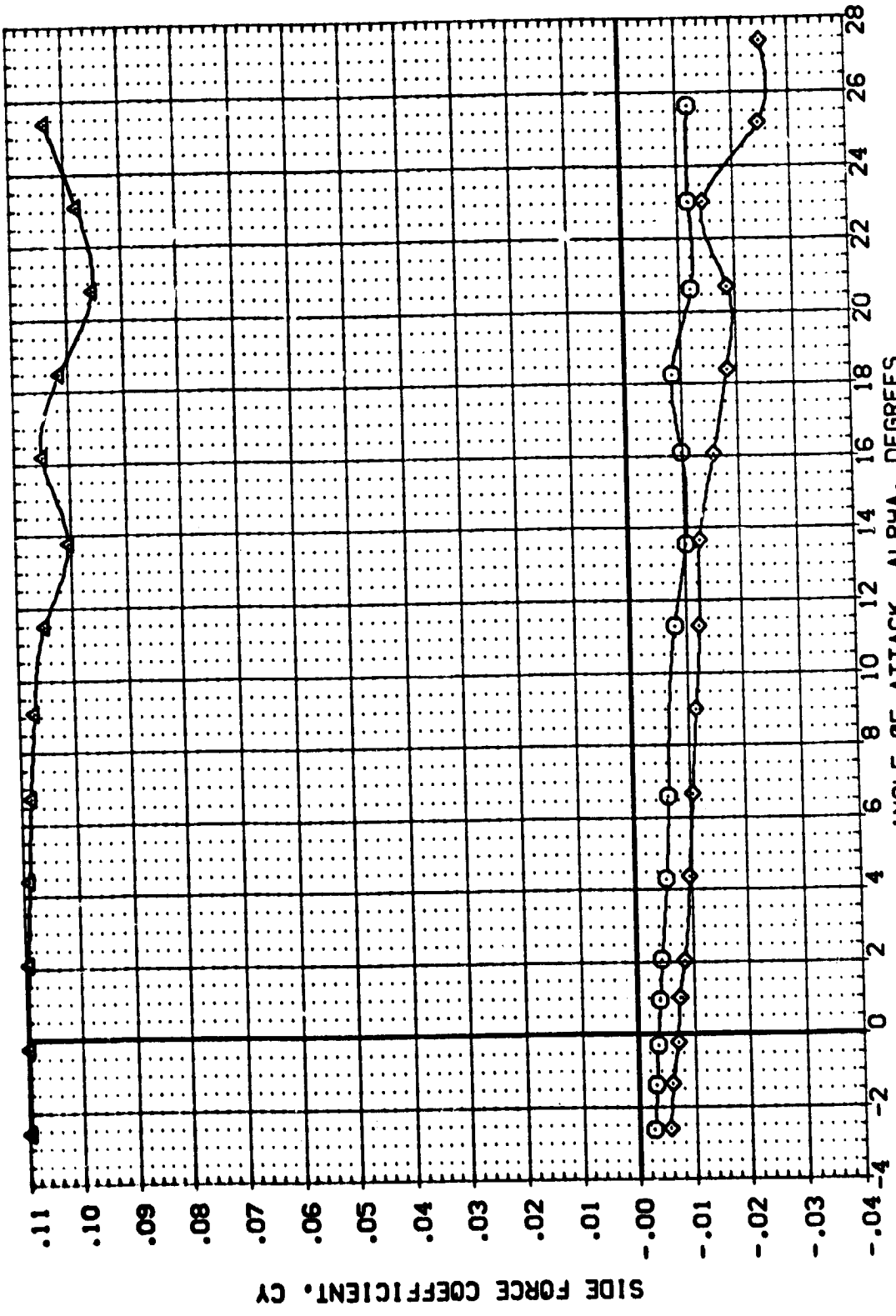


FIGURE 28 089B ORBITER LATERAL DIRECTIONAL YAW POLAR

(A)RN/L = 12.50

DATA SET SYMBOL: ☐ DATA NOT AVAILABLE
 (JPP045) (JPP044) DATA: LTP138.DR82A.(B10C507F461N3)(V87E18)(V59S)

CONFIGURATION DESCRIPTION

REFERENCE INFORMATION

REF	VAL	UNIT
SREF	87.1560	INCHES
LREF	19.5245	INCHES
BREF	14.0502	INCHES
XPRP	13.1469	INCHES
YPRP	6.0000	INCHES
ZPRP	6.0000	INCHES
SCALE	.0150	SCALE

DBETA: -5.000
 -5.000

RUDDER: .000
 .000

SPDRK: 24.920
 24.920

AILRON: .000
 .000

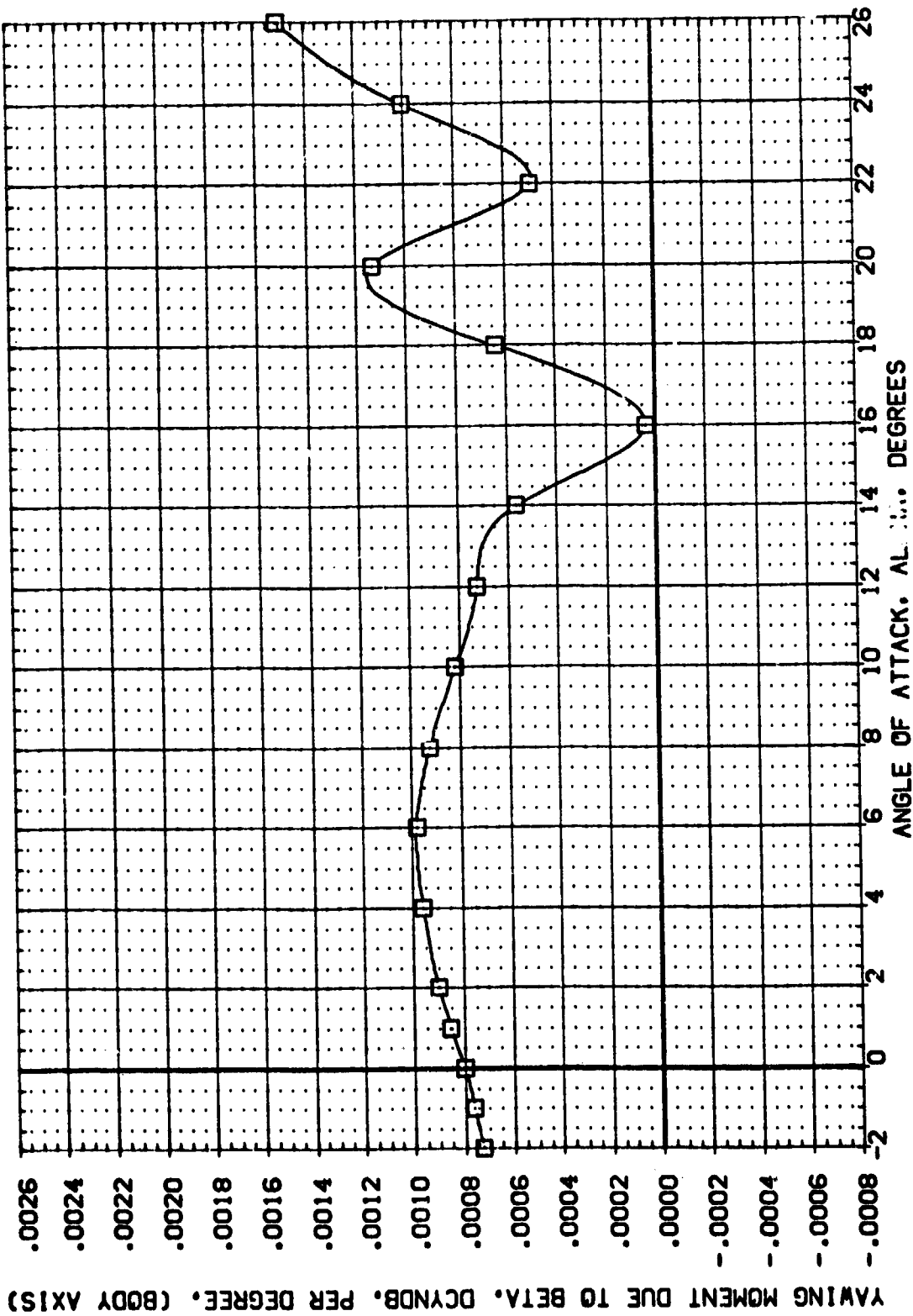


FIGURE 29 0898 ORBITER LATERAL DIRECTIONAL DERIVATIVES

(AJRN/L = 2.50

DATA SET SYMBOL: (JPP045) (CPO044)

CONFIGURATION DESCRIPTION: DATA NOT AVAILABLE

CA17.LTPT138.082A.(B10C507F4G1M3)(V07E18)(V5R5)

DBETA: -5.000

RUDDER: .000

SPDRBK: 24.920

AILRON: .000

REFERENCE INFORMATION:

REF	SO. IN.
SREF	67.1560
LREF	19.9245
BREF	14.0502
XREF	13.1769
YREF	0.0000
ZREF	6.0000
SCALE	0.0150

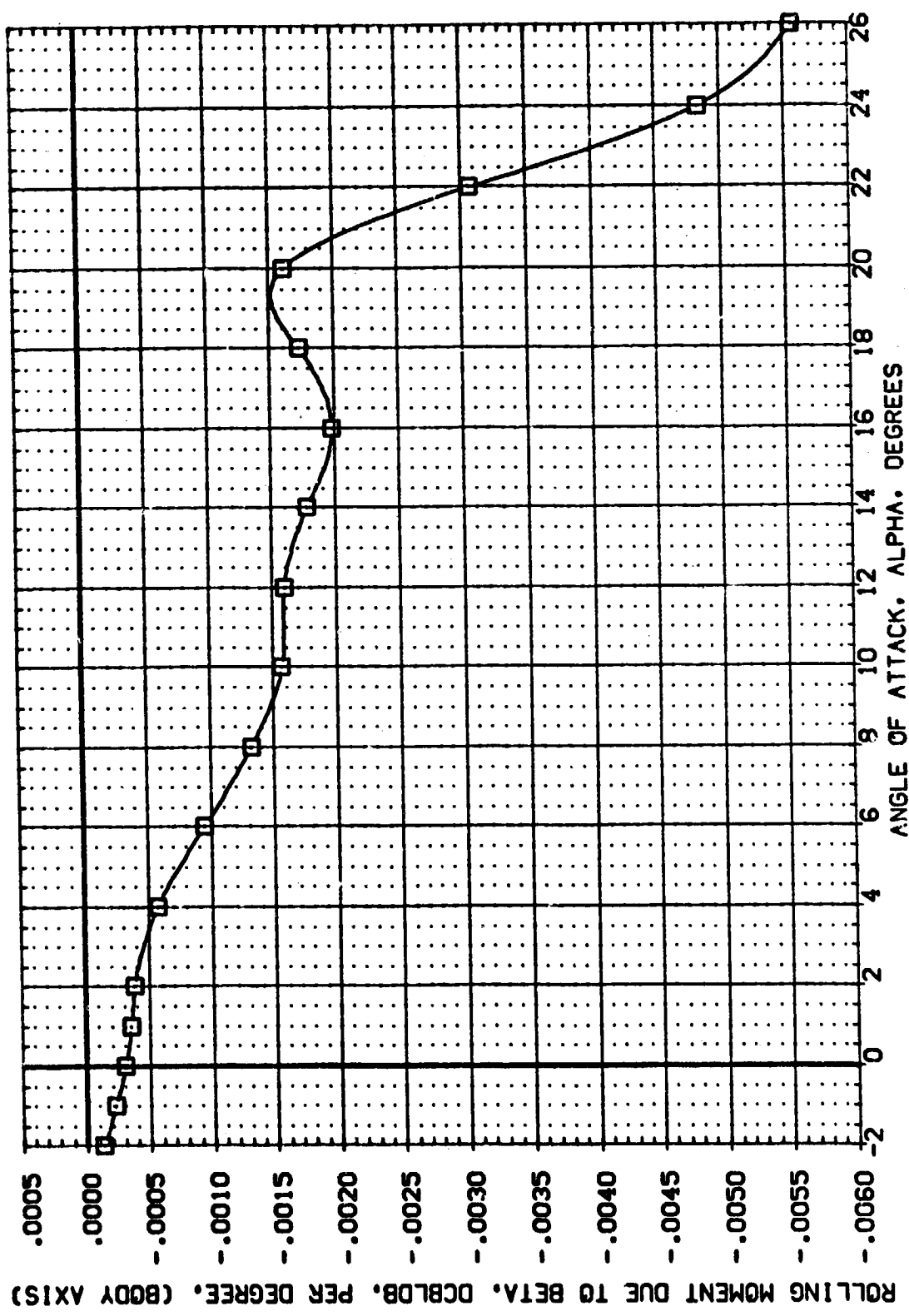


FIGURE 29 089B ORBITER LATERAL DIRECTIONAL DERIVATIVES

(A)RN/L = 2.50

DATA SET SYMBOL: (JPP045)
 CONFIGURATION DESCRIPTION: DATA NOT AVAILABLE
 (JPP044) DA17,LTPT138,OR82A,(B10C507F4G1M3)(V07E18)(V5F5)

DBETA: -5.000
 RLODR: .000
 SPDRK: 24.520
 AILRON: .000

REFERENCE INFORMATION
 SREF: 87.1560 INCHES
 LREF: 19.9245 INCHES
 BREF: 14.0502 INCHES
 XPRP: 13.1469 INCHES
 YPRP: .0000 INCHES
 ZPRP: 6.0000 INCHES
 SCALE: .0150

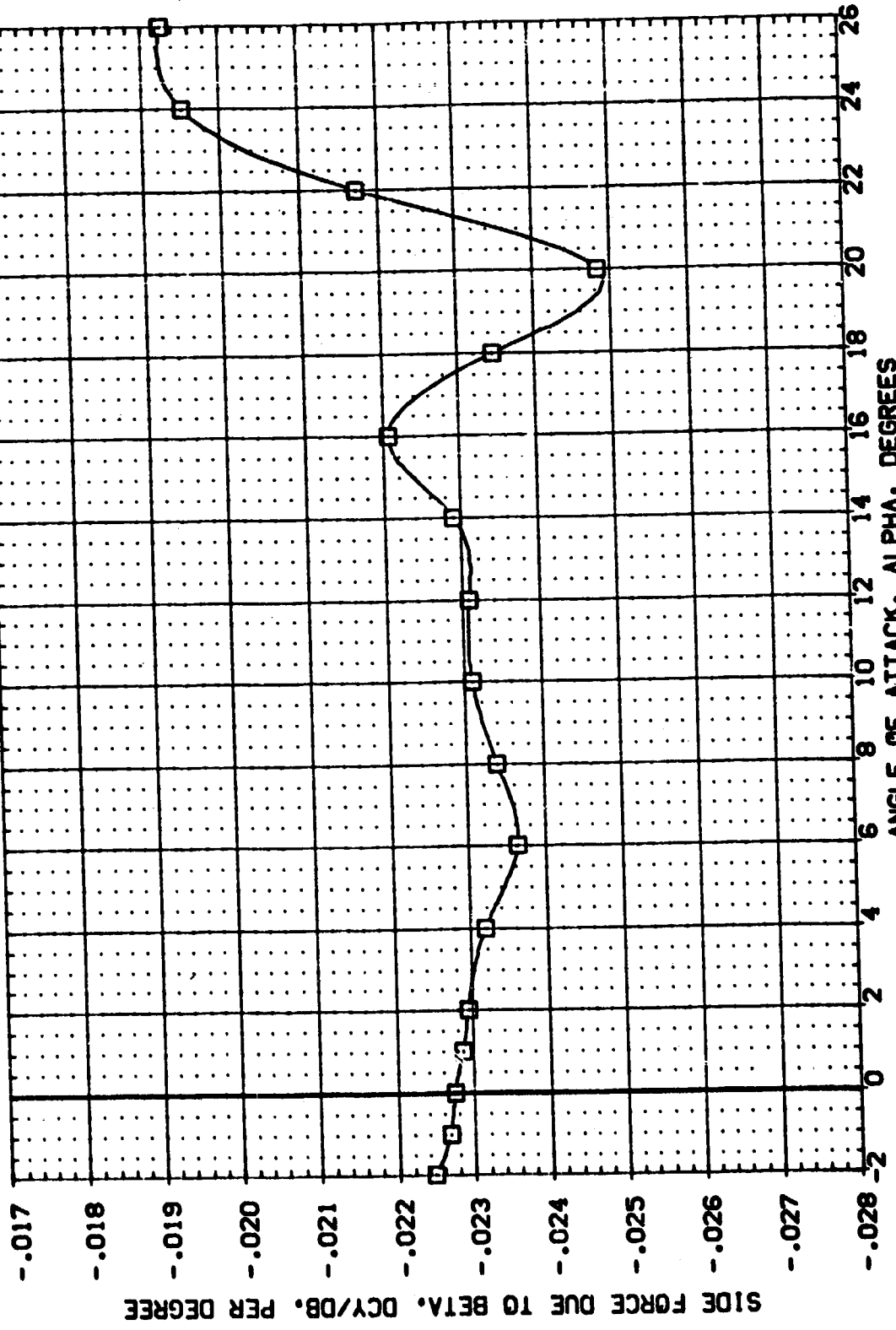
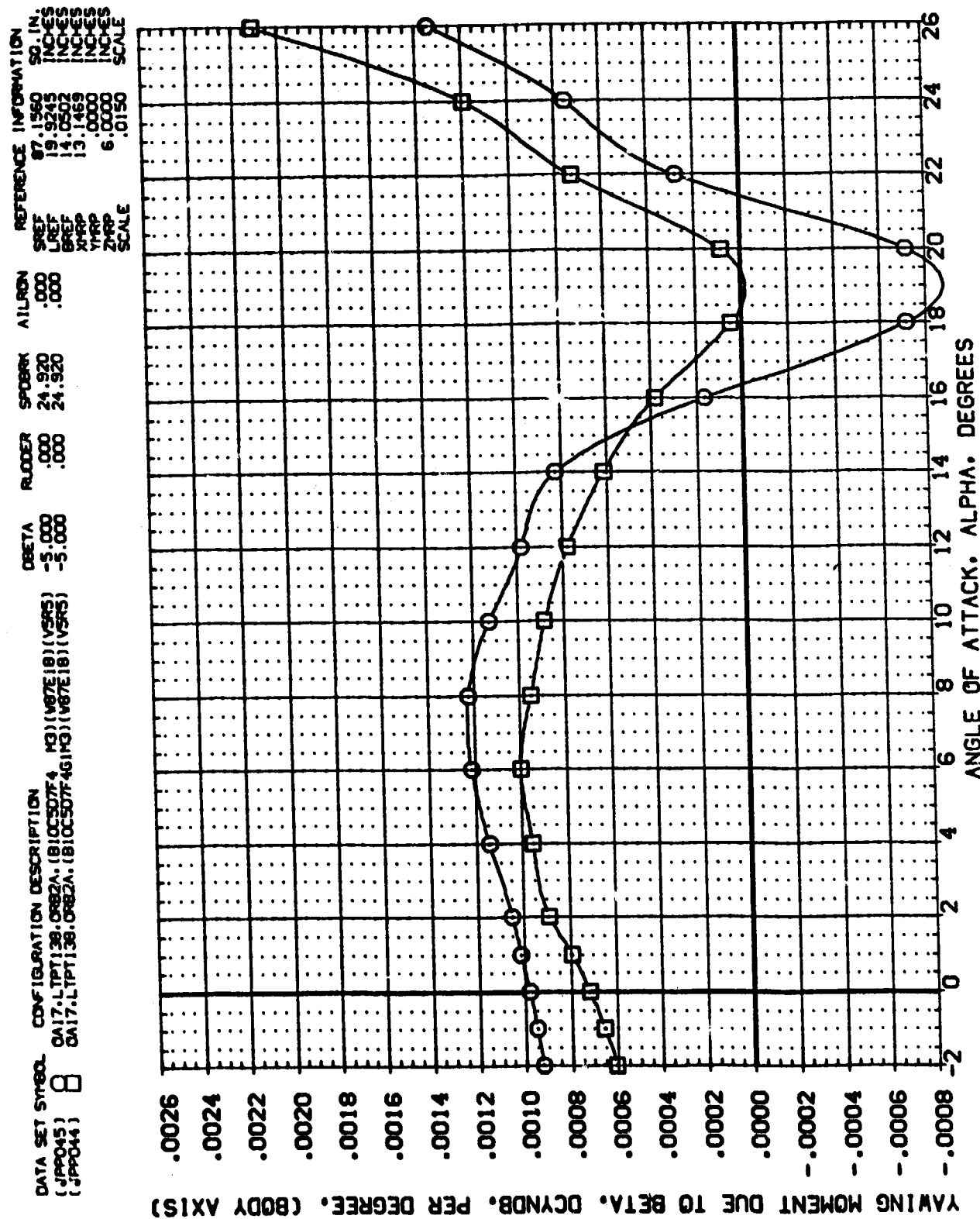


FIGURE 29 089B ORBITER LATERAL DIRECTIONAL DERIVATIVES

(A)RN/L = 2.50



PAGE 645

$$[A]_{RN/L} = 4.70$$

DATA SET SYMB. CONFIGURATION DESCRIPTION
 (JPP045) 0A17.LTPT138.082A.(B10C507F4 M3)(V87E18)(V585)
 (JPP044) 0A17.LTPT138.082A.(B10C507F461M3)(V87E18)(V585)

DATA SET SYMB. CONFIGURATION DESCRIPTION
 (JPP045) 0A17.LTPT138.082A.(B10C507F4 M3)(V87E18)(V585)
 (JPP044) 0A17.LTPT138.082A.(B10C507F461M3)(V87E18)(V585)

DATA SET SYMB. CONFIGURATION DESCRIPTION
 (JPP045) 0A17.LTPT138.082A.(B10C507F4 M3)(V87E18)(V585)
 (JPP044) 0A17.LTPT138.082A.(B10C507F461M3)(V87E18)(V585)

DATA SET SYMB. CONFIGURATION DESCRIPTION
 (JPP045) 0A17.LTPT138.082A.(B10C507F4 M3)(V87E18)(V585)
 (JPP044) 0A17.LTPT138.082A.(B10C507F461M3)(V87E18)(V585)

DATA SET SYMB. CONFIGURATION DESCRIPTION
 (JPP045) 0A17.LTPT138.082A.(B10C507F4 M3)(V87E18)(V585)
 (JPP044) 0A17.LTPT138.082A.(B10C507F461M3)(V87E18)(V585)

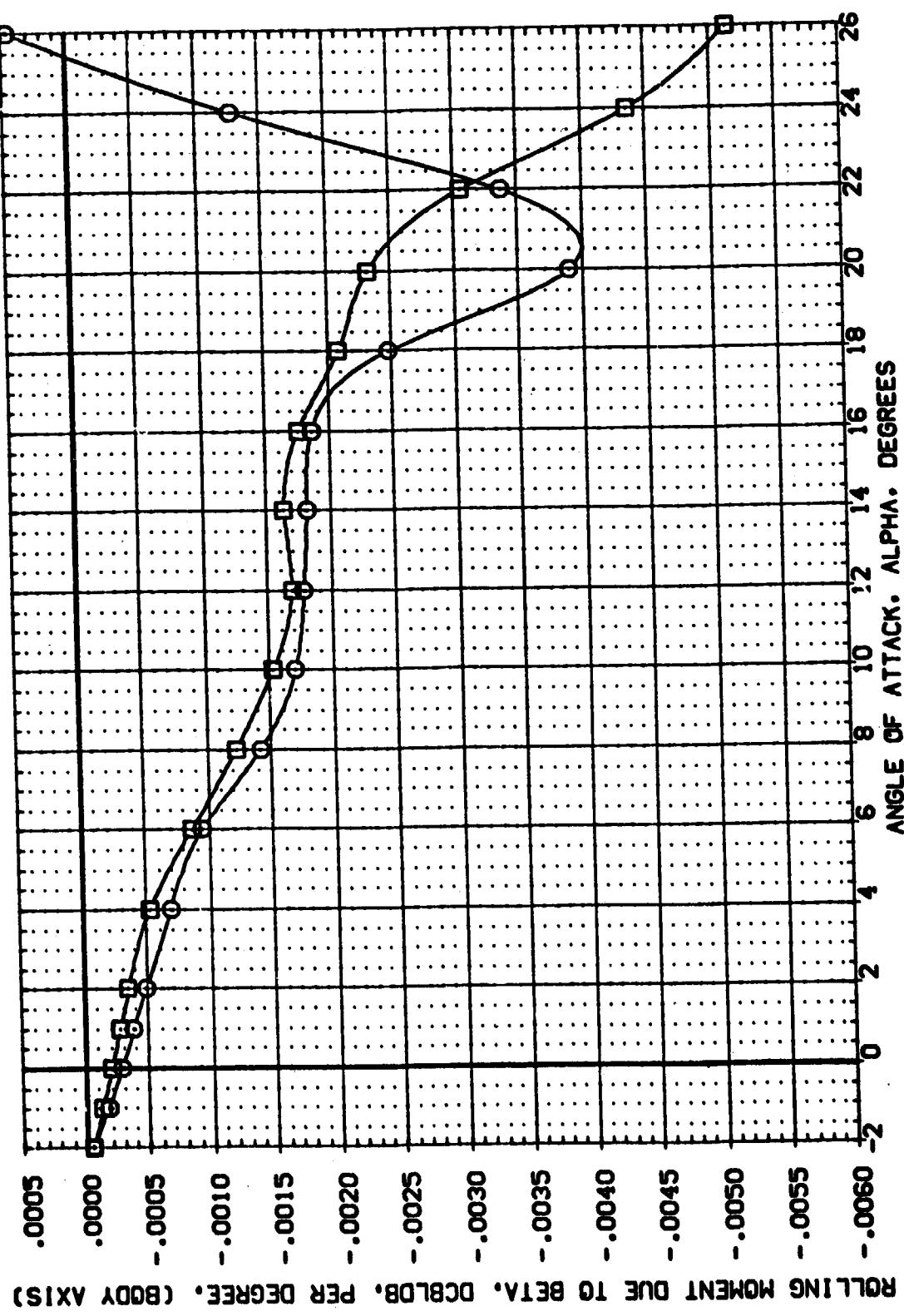


FIGURE 29 0898 ORBITER LATERAL DIRECTIONAL DERIVATIVES

(A)RN/L = 4.70

DATA SET SYMBOL: (JPP043)
(JPP044)

CONFIGURATION DESCRIPTION
QA17.LTPT138.0882A.(B10C507F4
QA17.LTPT138.0882A.(B10C507F4G1M3

OBETA
-5.000
-5.000

RUDER
.000
.000

SPDRM
24.520
24.520

AILRON
.000
.000

REFERENCE INFORMATION
SHEET 87.1560 90.15
UNIT 19.5245 INCHES
BREF 14.0502 INCHES
XREF 13.1469 INCHES
YREF .0000 INCHES
ZREF 6.0000 INCHES
SCALE .0150

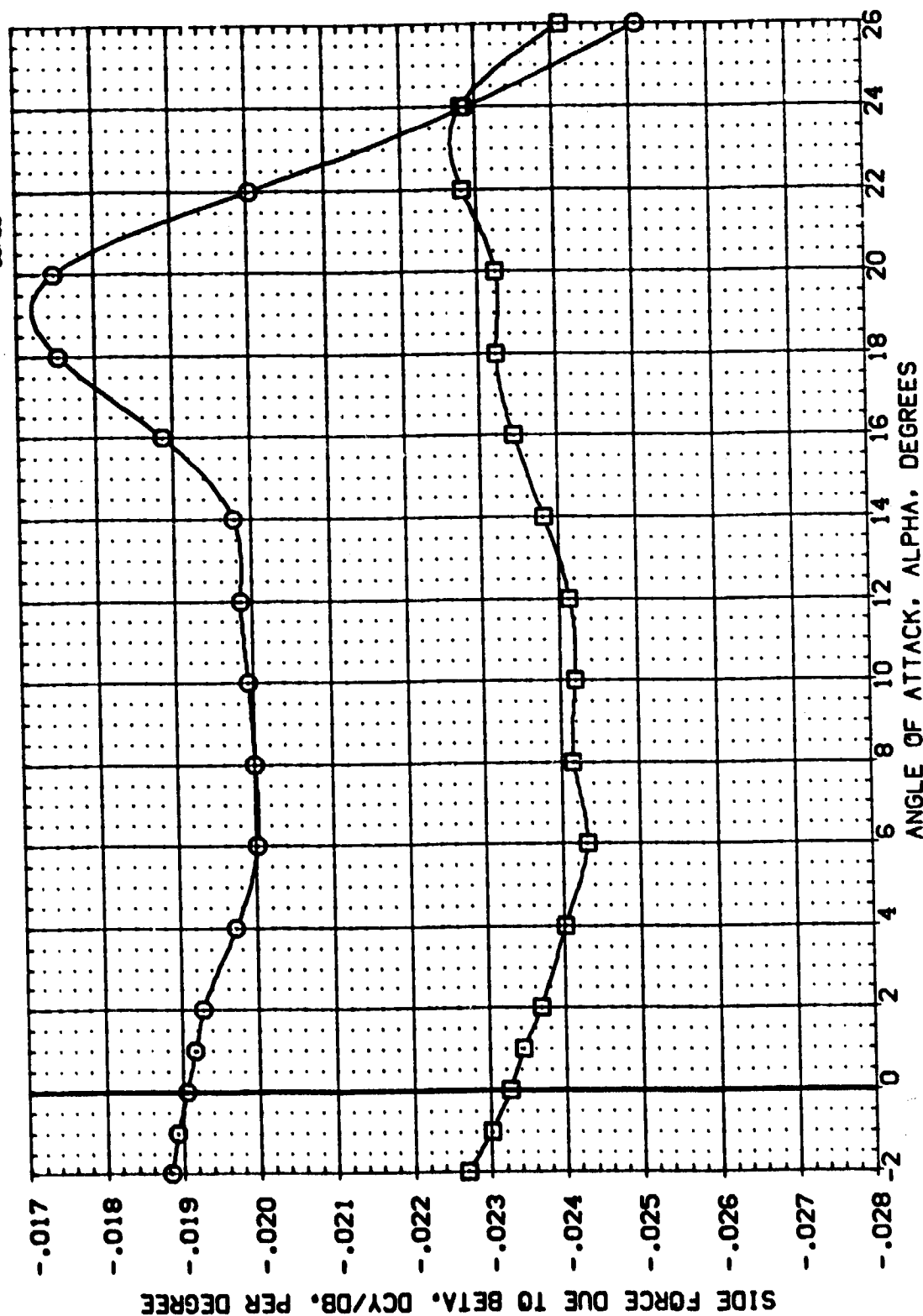


FIGURE 29 089B ORBITER LATERAL DIRECTIONAL DERIVATIVES

(A)RN/L = 4.70

DATA SET SYMBOL: (JPP045) (JPP044)

CONFIGURATION DESCRIPTION: CA17.LTPT138.0R82A.1810C507F4 PG1(1487E181(VSR5)) PG2(1487E181(VSR5))

REFERENCE INFORMATION: SREF 87.1560 SO. IN. LREF 19.9245 INCHES BREF 14.0502 INCHES XTRP 13.1465 INCHES YTRP 6.0000 INCHES ZTRP 6.0000 INCHES SCALE .0150

DETA: -5.000 -5.000

RUDER: .000 .000

SPORK: 24.920 24.920

AILRON: .000 .000

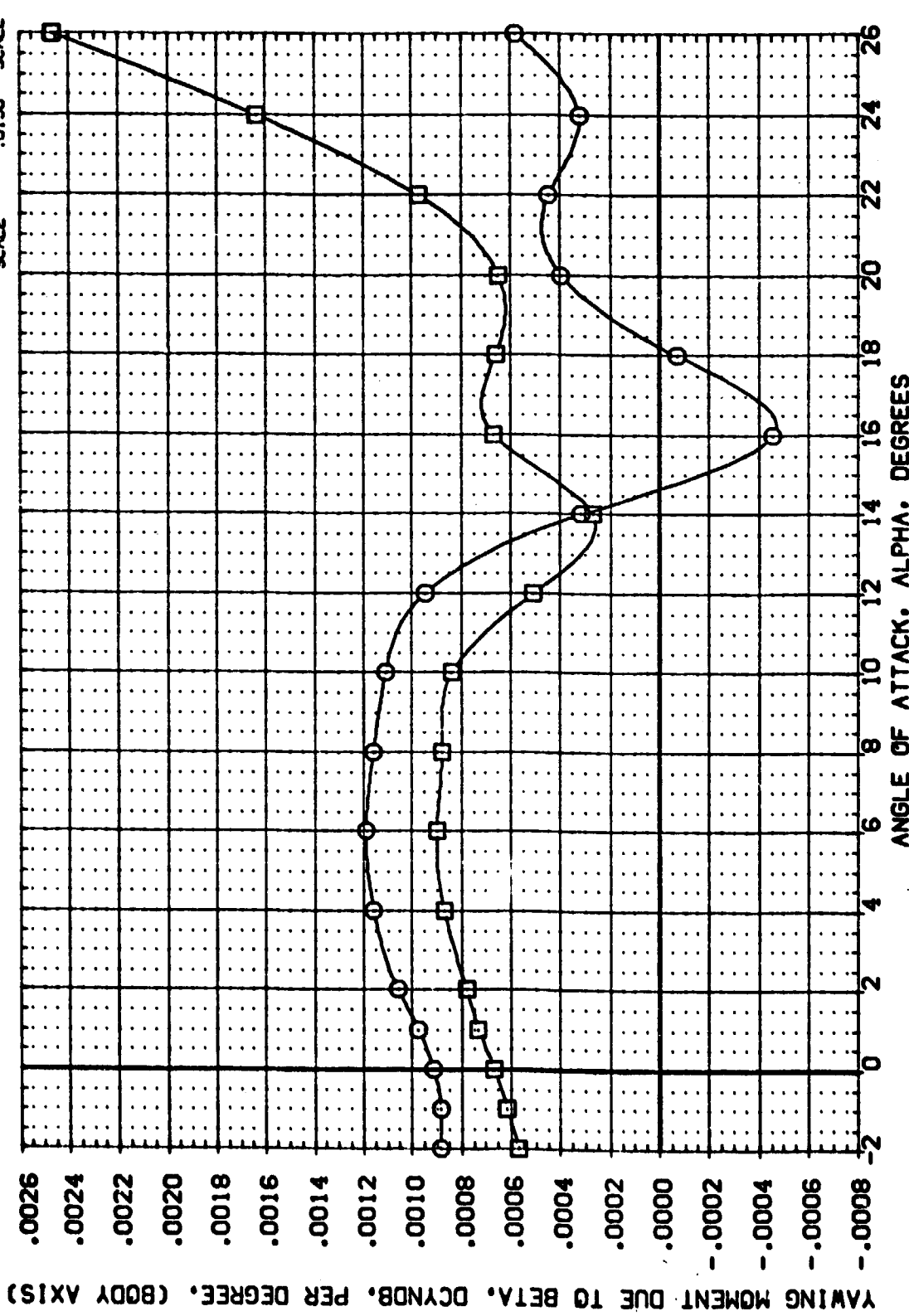


FIGURE 29 089B ORBITER LATERAL DIRECTIONAL DERIVATIVES

(AJRN/L = 10.00

DATA SET SYMBOL: 0A17.LTPT138.0882A.(810C507F4 0311087E1811V585)
 (-PP045) 0A17.LTPT138.0882A.(810C507F4 0311087E1811V585)
 (-PP044)

CONFIGURATION DESCRIPTION: 0A17.LTPT138.0882A.(810C507F4 0311087E1811V585)
 0A17.LTPT138.0882A.(810C507F4 0311087E1811V585)

REFERENCE INFORMATION: SREF 87.1560 50. IN.
 LREF 19.5245 INCHES
 BREF 14.0502 INCHES
 XREF 13.1469 INCHES
 YREF 6.0000 INCHES
 ZREF 6.0000 INCHES
 SCALE .0150

AILRON .000
 SPDBRK 24.520
 RUDDER .000
 DBETA -5.000

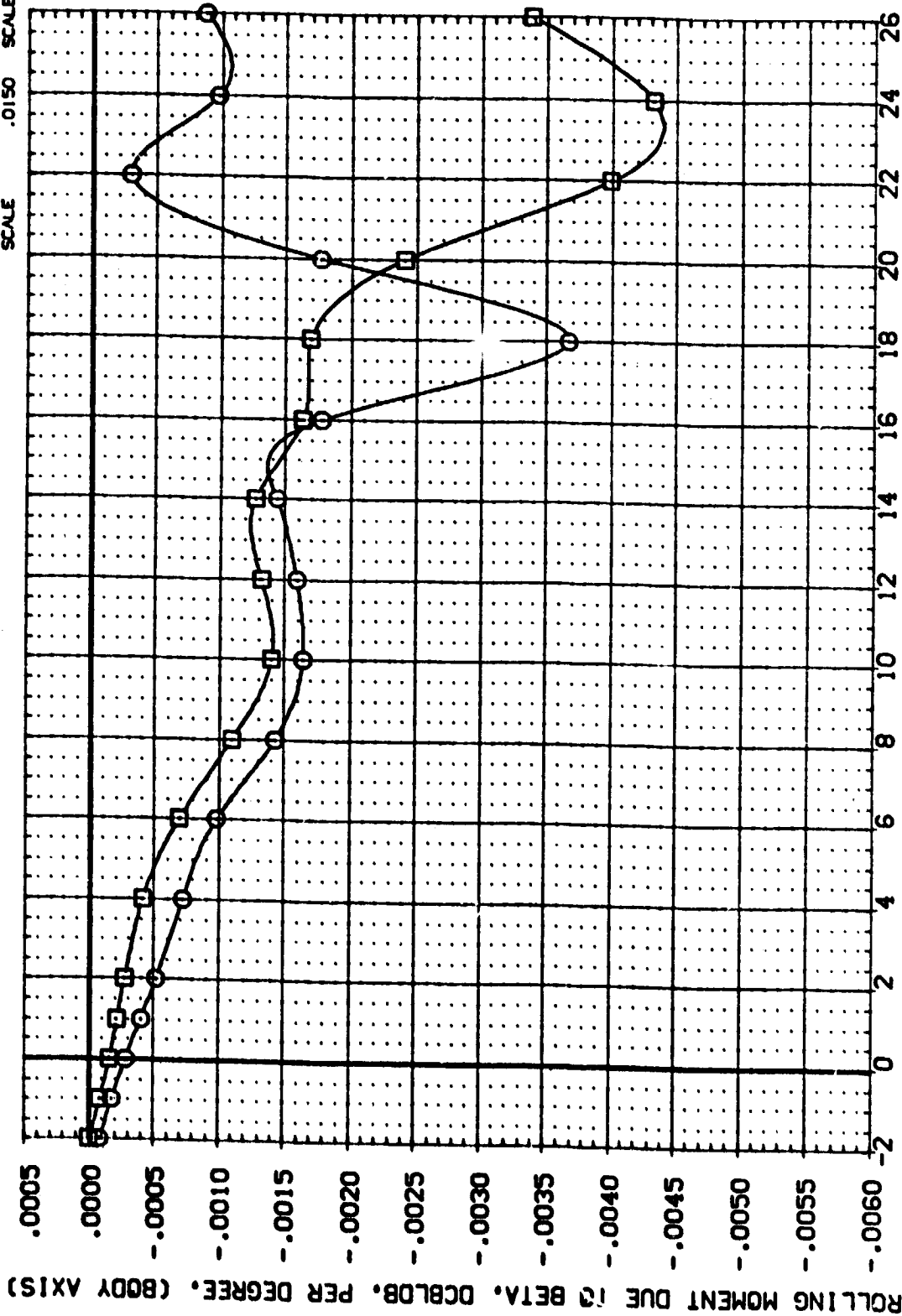


FIGURE 29 0898 ORBITER LATERAL DIRECTIONAL DERIVATIVES

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DBETA	RLOOER	SPOBRK	AILRON	REFERENCE INFORMATION
(JPP045)	DA17.LTPT138.OB62A.(8)DCSD7F4 MG)(V67E18)(V59S)	-5.000	.000	24.920	.000	SREF 87.1560 SO.IN.
(JPP044)	DA17.LTPT138.OB62A.(8)DCSD7F4G1PG)(V67E18)(V59S)	-5.000	.000	24.920	.000	LREF 19.9245 INCHES
						BREF 14.0502 INCHES
						XPRP 13.1459 INCHES
						YPRP .0000 INCHES
						ZPRP 6.0000 INCHES
						SCALE .0150 SCALE

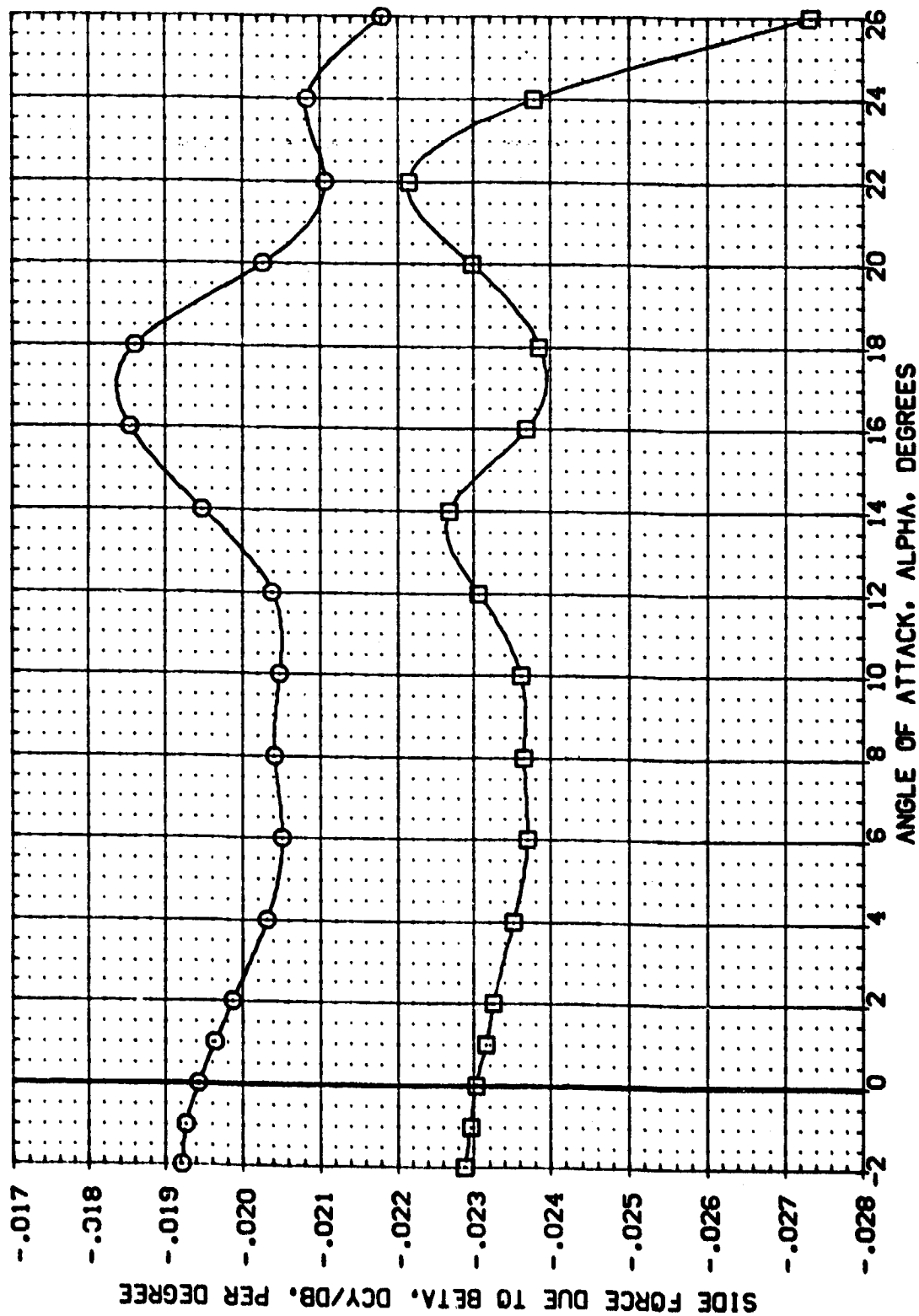


FIGURE 29 0898 ORBITER LATERAL DIRECTIONAL DERIVATIVES

$$[A]_{RN/L} = 10.00$$



DATA SET SYMBOL: (JPP045)
CONFIGURATION DESCRIPTION: DATA NOT AVAILABLE
(JPP044) 8 0A17.LTPT138.DR2A.(810C3D7F461P0)(V87E18)(V5R5)

BETA
-5.000
-5.000

ALURON
.000
.000

SPOBRK
24.520
24.520

REFERENCE INFORMATION
SREF 87.1560 50.1N
LREF 19.5245 INCHES
BREF 14.0502 INCHES
XREF 13.1469 INCHES
YREF .0000 INCHES
ZREF 6.0000 INCHES
SCALE .0150

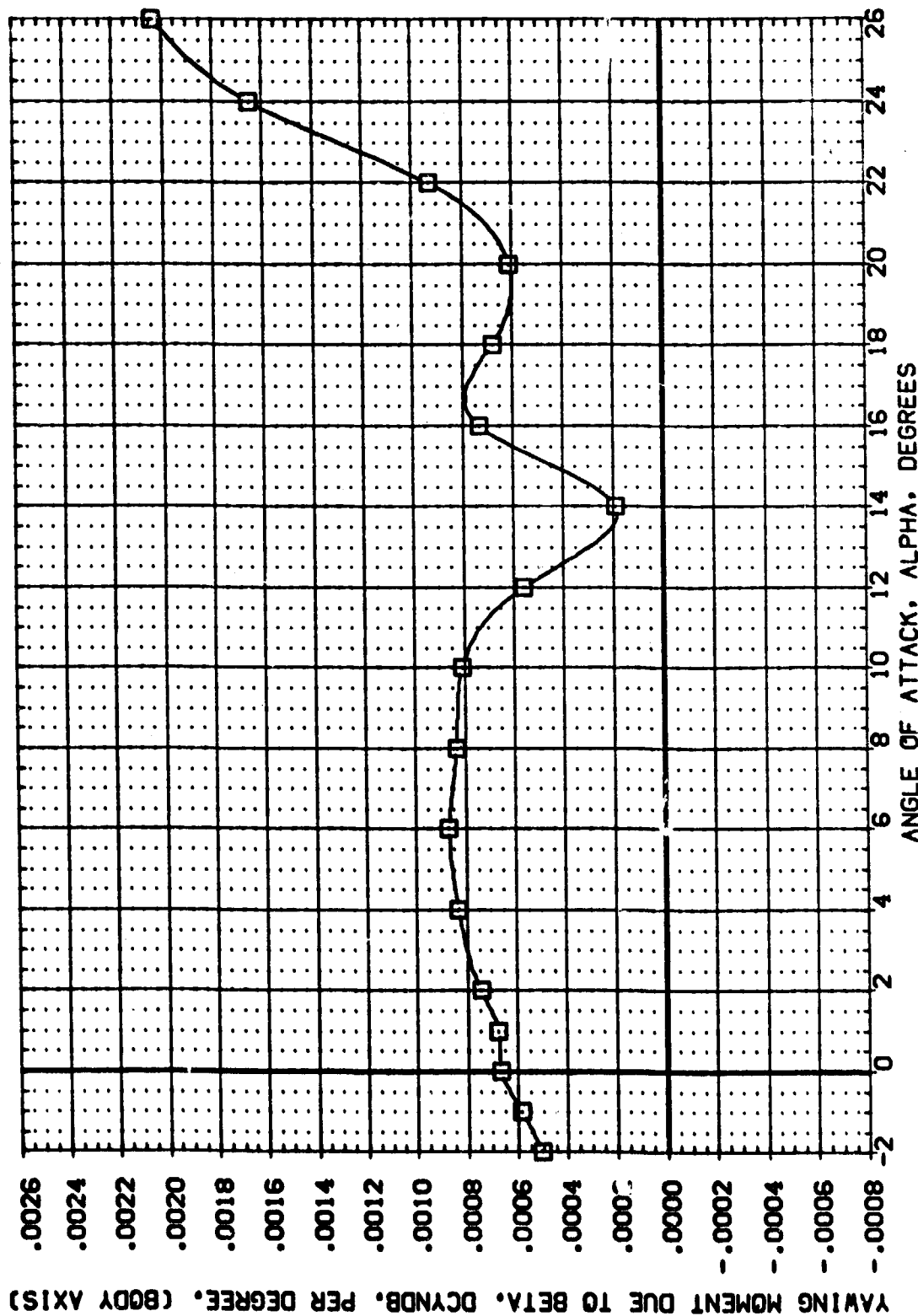


FIGURE 29 089B ORBITER LATERAL DIRECTIONAL DERIVATIVES

(A)RN/L = 12.50

DATA SET SYMBOL: (JPP045)
 CONFIGURATION DESCRIPTION: DATA NOT AVAILABLE
 (JPP044) DAI7.LTPT138.082A.(810C507F461M3)(W87E18)(V585)

DETA: -5.000
 RUDDER: .000
 SPOBRK: 24.920
 AILRON: .000

REFERENCE INFORMATION
 SREF: 87.1560 INCHES
 LREF: 19.5245 INCHES
 BREF: 14.0502 INCHES
 VREF: 13.1469 INCHES
 YREF: .0000 INCHES
 ZREF: 6.0000 INCHES
 SCALE: .0150

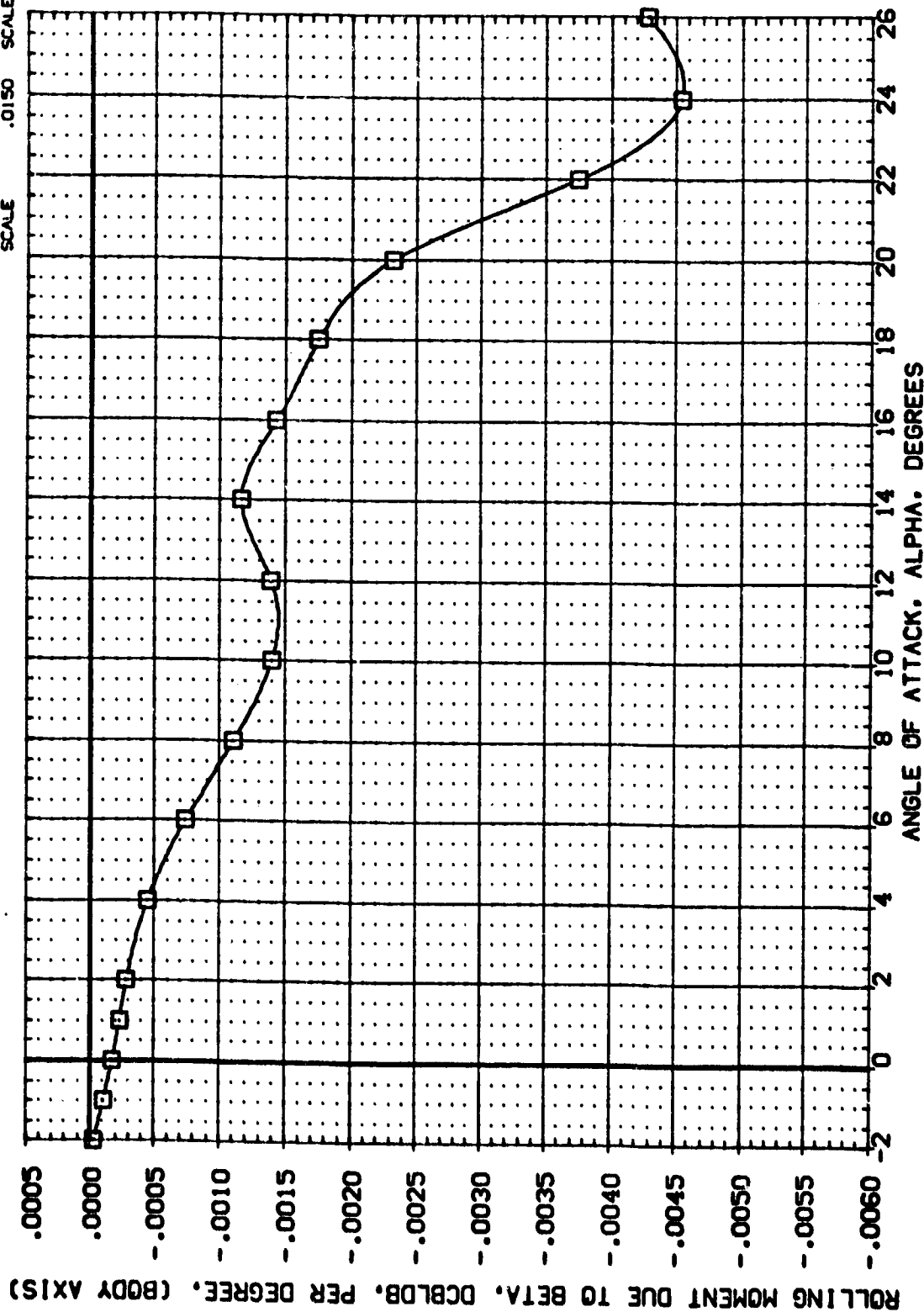


FIGURE 29 0898 ORBITER LATERAL DIRECTIONAL DERIVATIVES

(AJRN/L = 12.50

DATA SET SYMBOL: CONFIGURATION DESCRIPTION: DATA NOT AVAILABLE (JPP045) (JPP044) CA17.LTPT138.082A. (810C507F461M3) (V87E18) (V59S)

DETA RUDER SPOBRK ALLARM REFERENCE INFORMATION

9REF	87.1560	50. IN
LREF	19.5245	INCHES
BREF	14.0502	INCHES
XGRP	13.1469	INCHES
YGRP	6.0000	INCHES
ZGRP	6.0000	INCHES
SCALE	.0150	SCALE

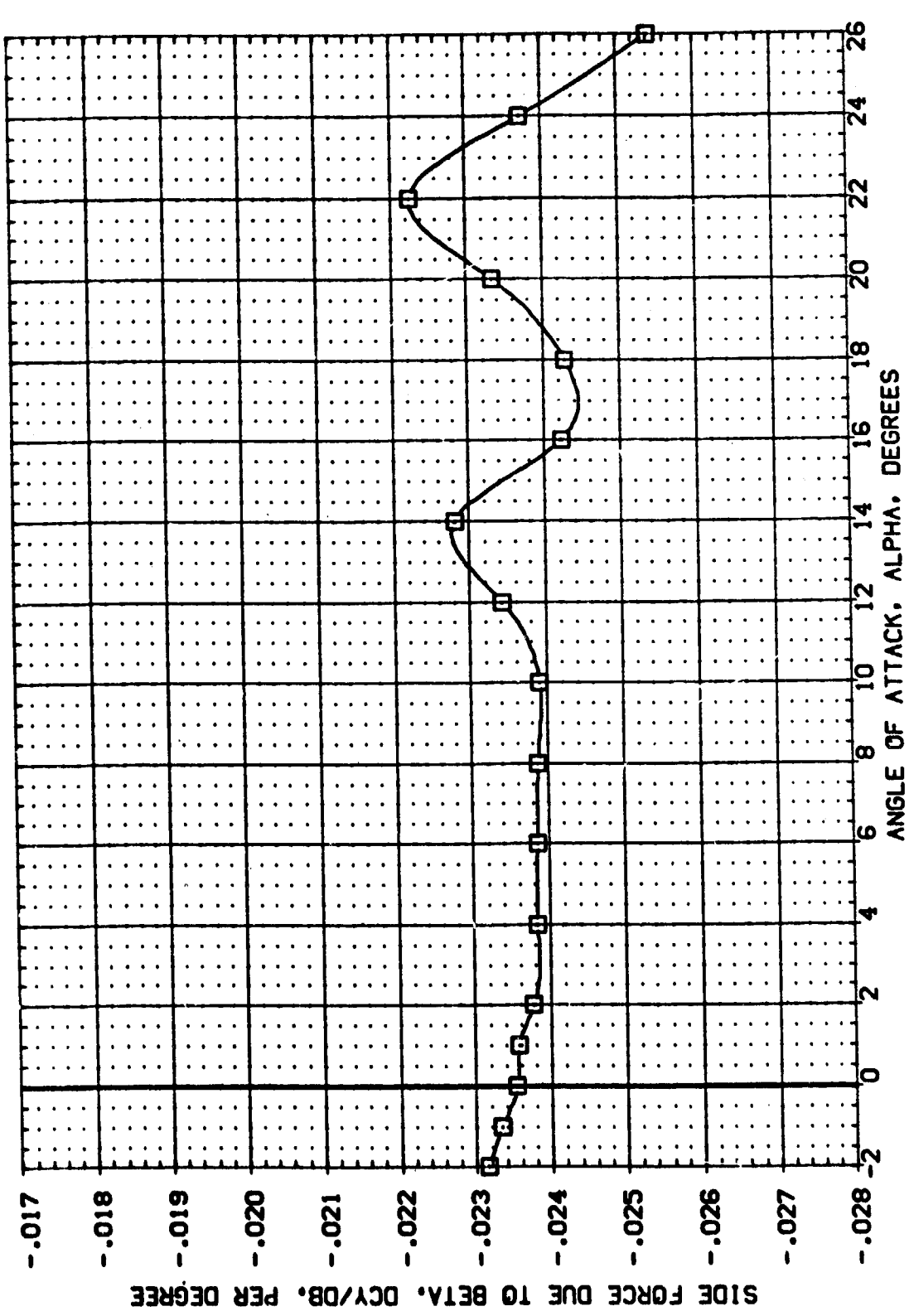


FIGURE 29 089B ORBITER LATERAL DIRECTIONAL DERIVATIVES

(AJRN/L = 12.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILRON	ELEVTR	BETA	RUDDER	REFERENCE INFORMATION
(RPP031)	CA17.LTPT138.0882A.(B10C507F4	4.400	.000	.000	.000	SREF 87.1560 SO.IN
(RPP033)	CA17.LTPT138.0882A.(B10C507F4	3.700	.000	.000	.000	LREF 19.9245 INCHES
(RPP039)	CA17.LTPT138.0882A.(B10C507F4	4.600	.000	.000	.000	BREF 14.0502 INCHES
(RPP034)	CA17.LTPT138.0882A.(B10C507F4	15.000	.000	.000	.000	XREF 13.1469 INCHES
(RPP037)	CA17.LTPT138.0882A.(B10C507F4	8.900	.500	.000	.000	YREF .0000 INCHES
(RPP027)	CA17.LTPT138.0882A.(B10C507F4	.000	.000	.000	.000	ZREF 6.0000 INCHES
						SCALE .0150

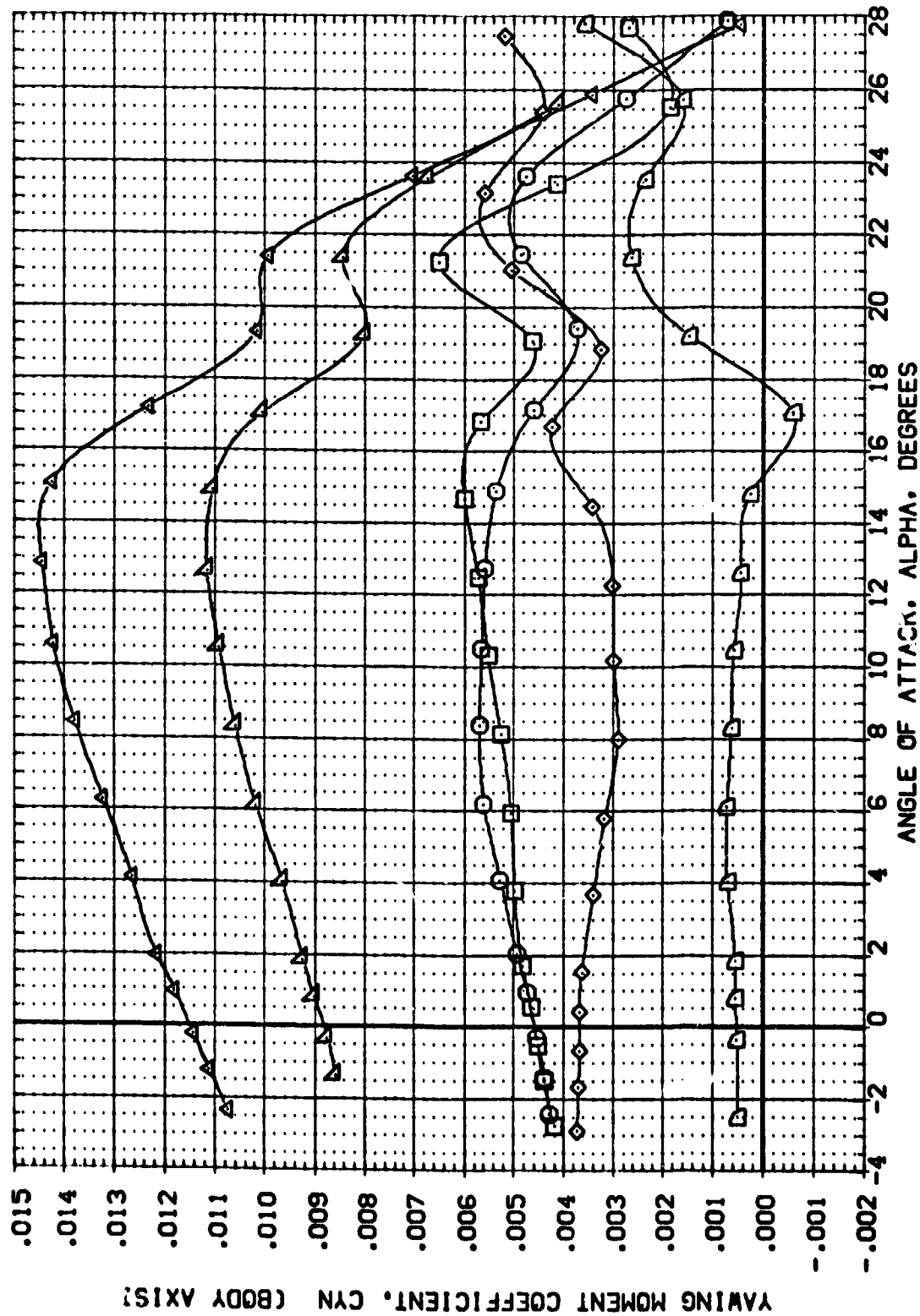


FIGURE 30 0898 ORBITER AILERON DEFLECTION EFFECTS

(AJRN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILERON	ELEVTR	BETA	RUDER	REFERENCE INFORMATION
(RPP031)	CA17,LTPT138,CRB2A,(B1)DC507F4	4.400	.000	.000	.000	SREF 87.1560 SO.IN.
(RPP033)	CA17,LTPT138,CRB2A,(B1)DC507F4	3.700	-9.600	.000	.000	LREF 19.9245 INCHES
(RPP039)	CA17,LTPT138,CRB2A,(B1)DC507F4	4.600	-15.900	.000	.000	BREF 14.0502 INCHES
(RPP034)	CA17,LTPT138,CRB2A,(B1)DC507F4	15.000	.000	.000	.000	XTRP 13.1469 INCHES
(RPP037)	CA17,LTPT138,CRB2A,(B1)DC507F4	8.500	.500	.000	.000	ZTRP 6.0000 INCHES
(RPP037)	CA17,LTPT138,CRB2A,(B1)DC507F4					SCALE .0150 SCALE

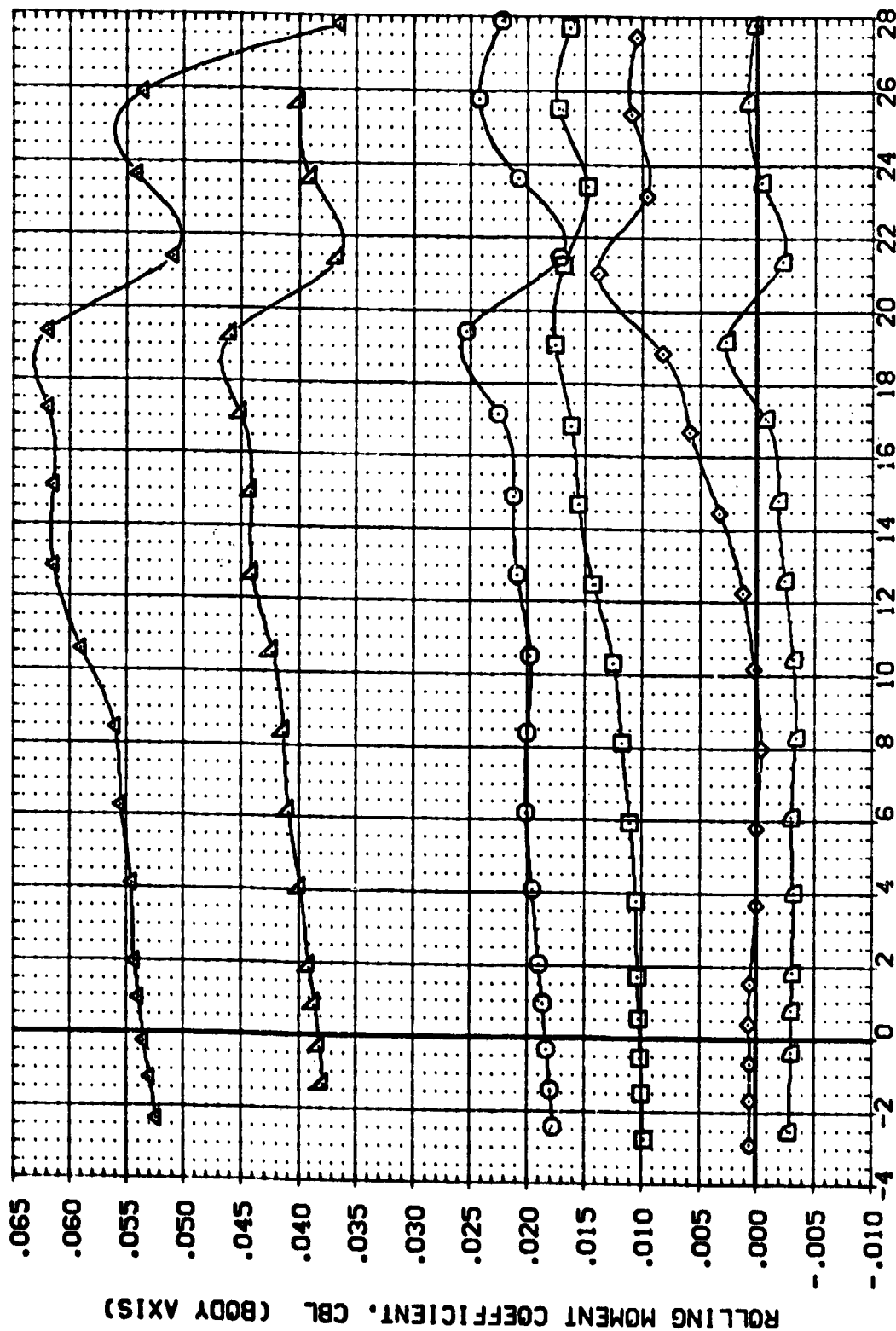


FIGURE 30 089B ORBITER AILERON DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILERON	ELEVTR	BETA	RUDDER	REFERENCE INFORMATION
(RPP031)	GA17.LTPT138.0882A. (B10C507F4	4.400	.000	.000	.000	SREF 87.1560 SQ. IN.
(RPP033)	GA17.LTPT138.0882A. (B10C507F4	3.700	.000	.000	.000	LREF 19.9245 INCHES
(RPP039)	GA17.LTPT138.0882A. (B10C507F4	4.600	-9.900	.000	.000	BREF 14.0507 INCHES
(RPP034)	GA17.LTPT138.0882A. (B10C507F4	5.000	.000	.000	.000	XMRP 13.1469 INCHES
(RPP037)	GA17.LTPT138.0882A. (B10C507F4	6.900	.500	.000	.000	YMRP 6.0000 INCHES
(RPP027)	GA17.LTPT138.0882A. (B10C507F4	.000	.000	.000	.000	ZMRP 6.0150 INCHES
						SCALE

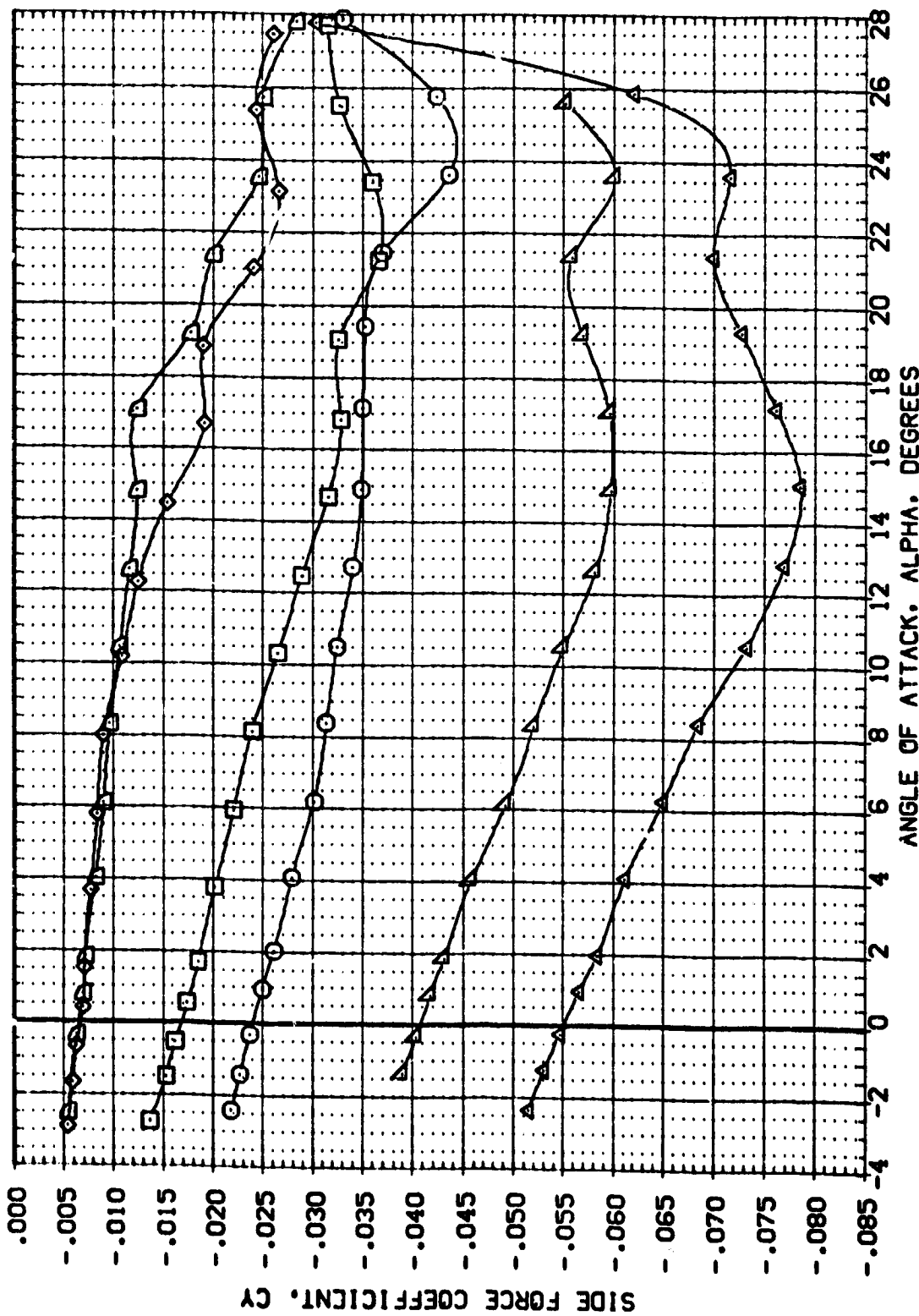


FIGURE 30 0898 ORBITER AILERON DEFLECTION EFFECTS

(A)RN/L = 4.70



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILERON	ELEVTR	BETA	RUDDER	REFERENCE INFORMATION
(RPPC31)	DATA NOT AVAILABLE	4.400	.000	.000	.000	87.1560 SO. IN.
(RPPC32)	DA17.LTPT138.DR82A.(B1OC507F4	3.700	.000	.000	.000	19.9245 INCHES
(RPPC33)	DA17.LTPT138.DR82A.(B1OC507F4	4.600	-9.600	.000	.000	14.0502 INCHES
(RPPC34)	DA17.LTPT138.DR82A.(B1OC507F4	15.000	.000	.000	.000	13.1469 INCHES
(RPPC37)	DA17.LTPT138.DR82A.(B1OC507F4	8.900	.500	.000	.000	6.0000 INCHES
(RPPC27)	DA17.LTPT138.DR82A.(B1OC507F4	.000	.000	.000	.000	.0150 SCALE

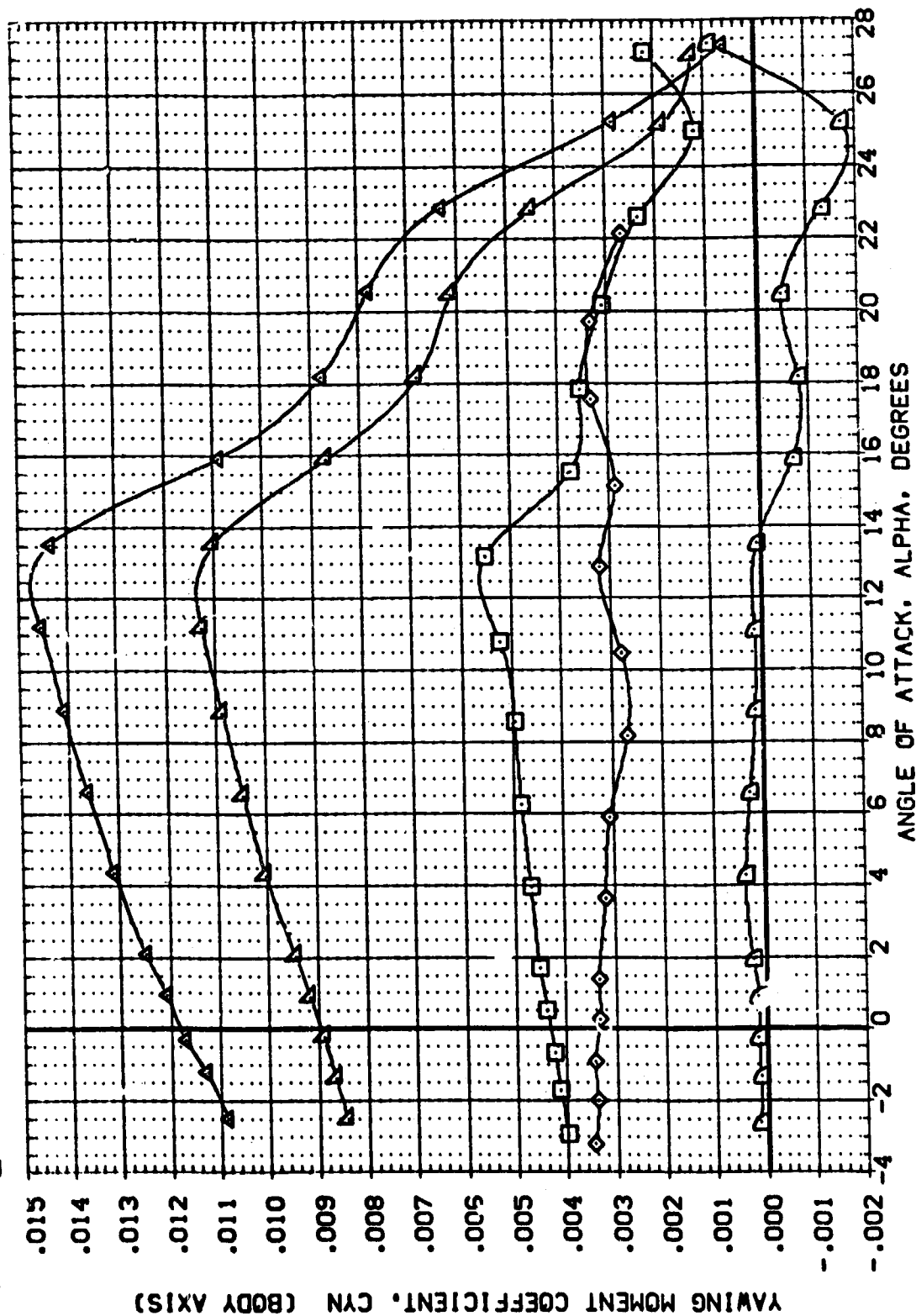


FIGURE 30 089B ORBITER AILERON DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILRON	ELEVTR	BETA	FLUDER	REFERENCE INFORMATION
(RPP031)	DATA NOT AVAILABLE	4.400	.000	.000	.000	87.1550
(RPP033)	CA17.LTPT138.0R82A.(B10C507F4	3.700	.000	.000	.000	19.9245
(RPP039)	CA17.LTPT138.0R82A.(B10C507F4	4.600	-9.600	.000	.000	14.0502
(RPP034)	CA17.LTPT138.0R82A.(B10C507F4	15.000	.000	.000	.000	13.1489
(RPP037)	CA17.LTPT138.0R82A.(B10C507F4	8.900	.500	.000	.000	6.0000
(RPP027)	CA17.LTPT138.0R82A.(B10C507F4	.000	.000	.000	.000	.0150
						SCALE

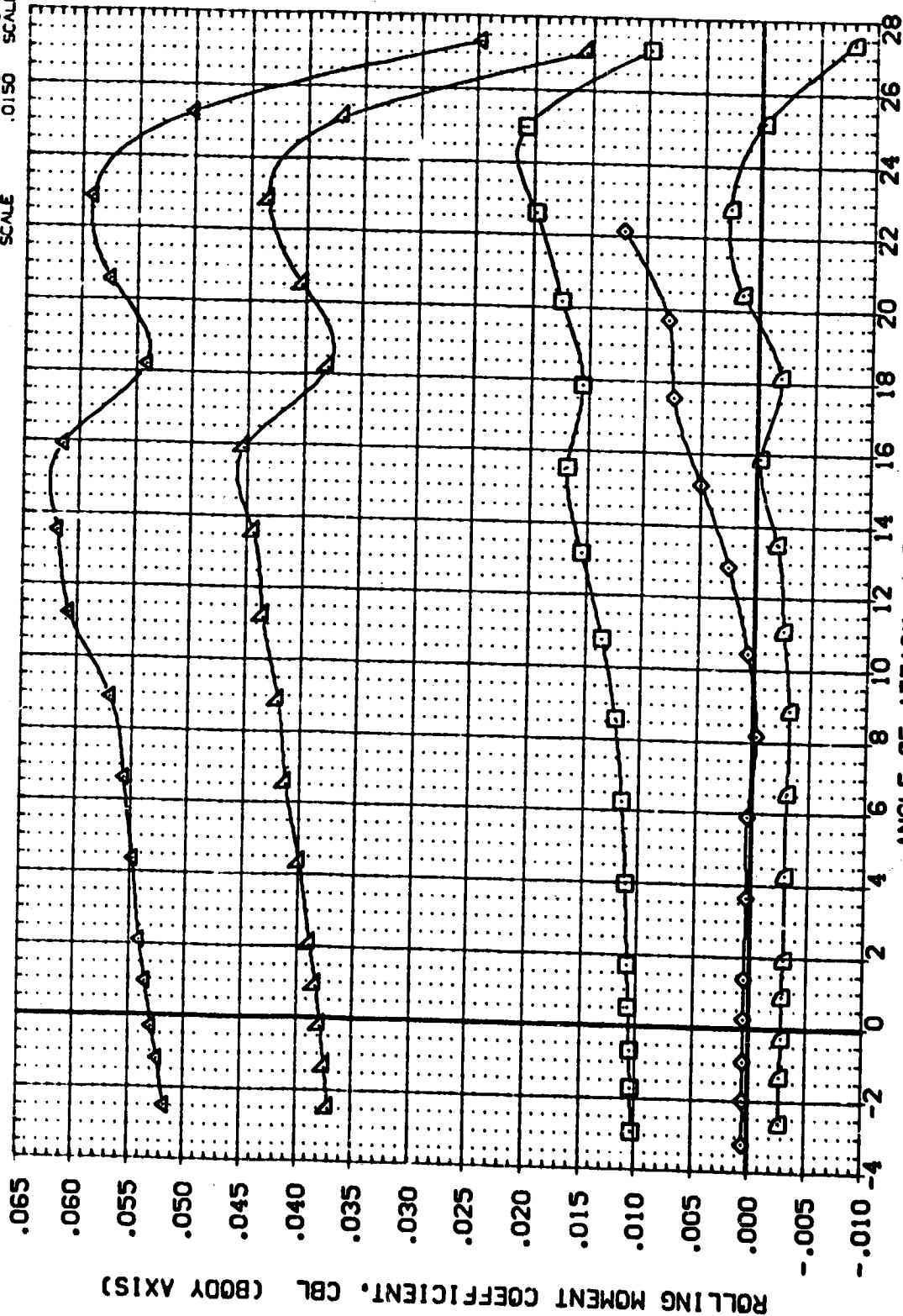


FIGURE 30 0898 ORBITER AILERON DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILRON	ELEVTR	BETA	RLDRR	REFERENCE INFORMATION
(RPP031)	DATA NOT AVAILABLE	4.400	.000	.000	.000	SREF 87.1560 SO. IN.
(RPP033)	CA17.LTPT 38.DRB2A.(81DC507F4	3.700	-9.800	.000	.000	LREF 19.5215 NC-ES
(RPP039)	CA17.LTPT 38.DRB2A.(81DC507F4	4.600	-19.900	.000	.000	SREF 14.0502 NC-ES
(RPP034)	CA17.LTPT 38.DRB2A.(81DC507F4	15.000	.000	.000	.000	X-REF 13.1469 NC-ES
(RPP037)	CA17.LTPT 38.DRB2A.(81DC507F4	8.900	.500	.000	.000	Y-REF 6.0000 NC-ES
(RPP027)	CA17.LTPT 38.DRB2A.(81DC507F4	.000	.000	.000	.000	Z-REF 6.0150 NC-ES
						SCALE

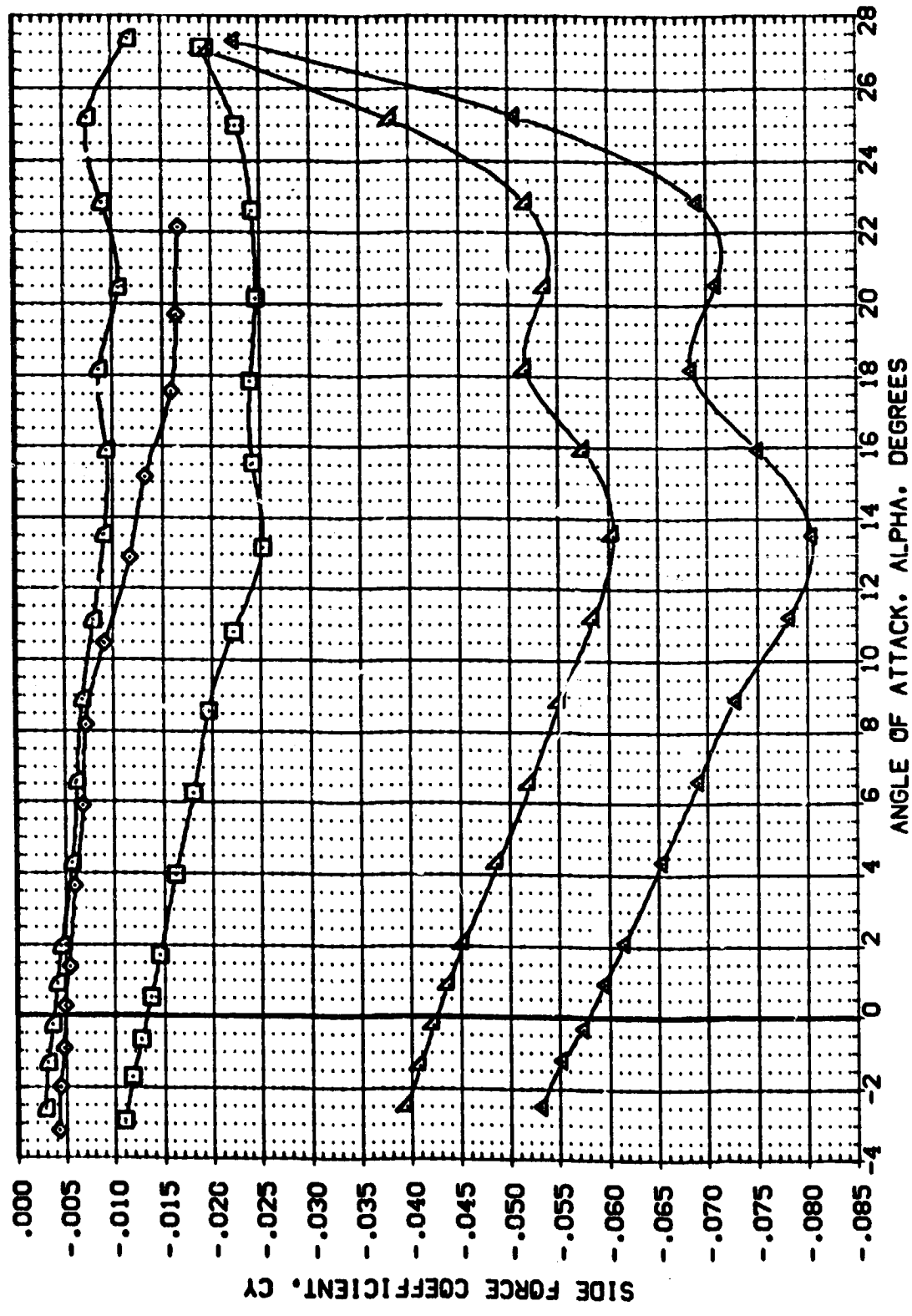


FIGURE 30 0898 ORBITER AILERON DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBL	CONFIGURATION DESCRIPTION	DAILIN	ELEVON	BETA	RUDDER	REFERENCE INFORMATION
(JPC31)	DA17.LTPT138.CRB2A.(B1QC507F4	4.400	.000	.000	.000	SREF 87.1560 SO.IN.
(JPC32)	DA17.LTPT138.CRB2A.(B1QC507F4	3.700	.000	.000	.000	LREF 19.9245 INCHES
(JPC33)	DA17.LTPT138.CRB2A.(B1QC507F4	4.600	-9.500	.000	.000	BREF 14.0502 INCHES
(JPC34)	DA17.LTPT138.CRB2A.(B1QC507F4	5.000	-19.500	.000	.000	XRRP 13.1469 INCHES
(JPC37)	DA17.LTPT138.CRB2A.(B1QC507F4	8.500	.500	.000	.000	YRRP 6.0000 INCHES
						ZRRP .0150 SCALE

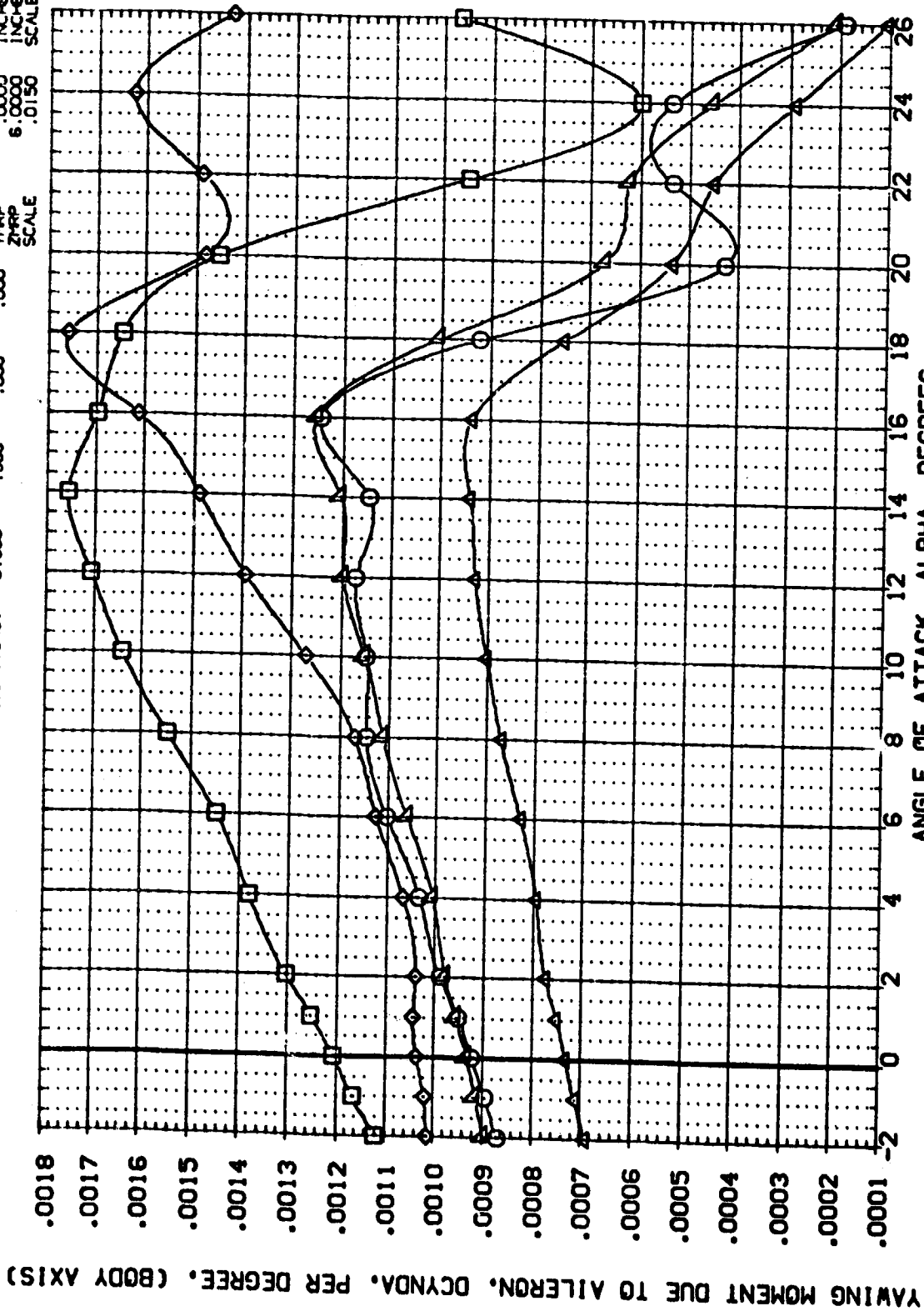


FIGURE 31 0898 ORBITER AILERON EFFECTIVENESS DERIVATIVES

(AJRN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DAILIN	ELEVON	BETA	RUDER	REFERENCE INFORMATION
(JPO31)	DA17,LTPT 38,OR82A,(B1OC507F4	4.400	.000	.000	.000	SREF 87.1560 SO.IN.
(JPO33)	DA17,LTPT 38,OR82A,(B1OC507F4	3.700	-9.500	.000	.000	LREF 19.9245 INCHES
(JPO33)	DA17,LTPT 38,OR82A,(B1OC507F4	4.600	-19.500	.000	.000	BREF 14.0502 INCHES
(JPO34)	DA17,LTPT 38,OR82A,(B1OC507F4	15.000	.000	.000	.000	YPRP 13.1469 INCHES
(JPO37)	DA17,LTPT 38,OR82A,(B1OC507F4	8.900	.500	.000	.000	ZPRP 6.0000 INCHES
						SCALE .0150

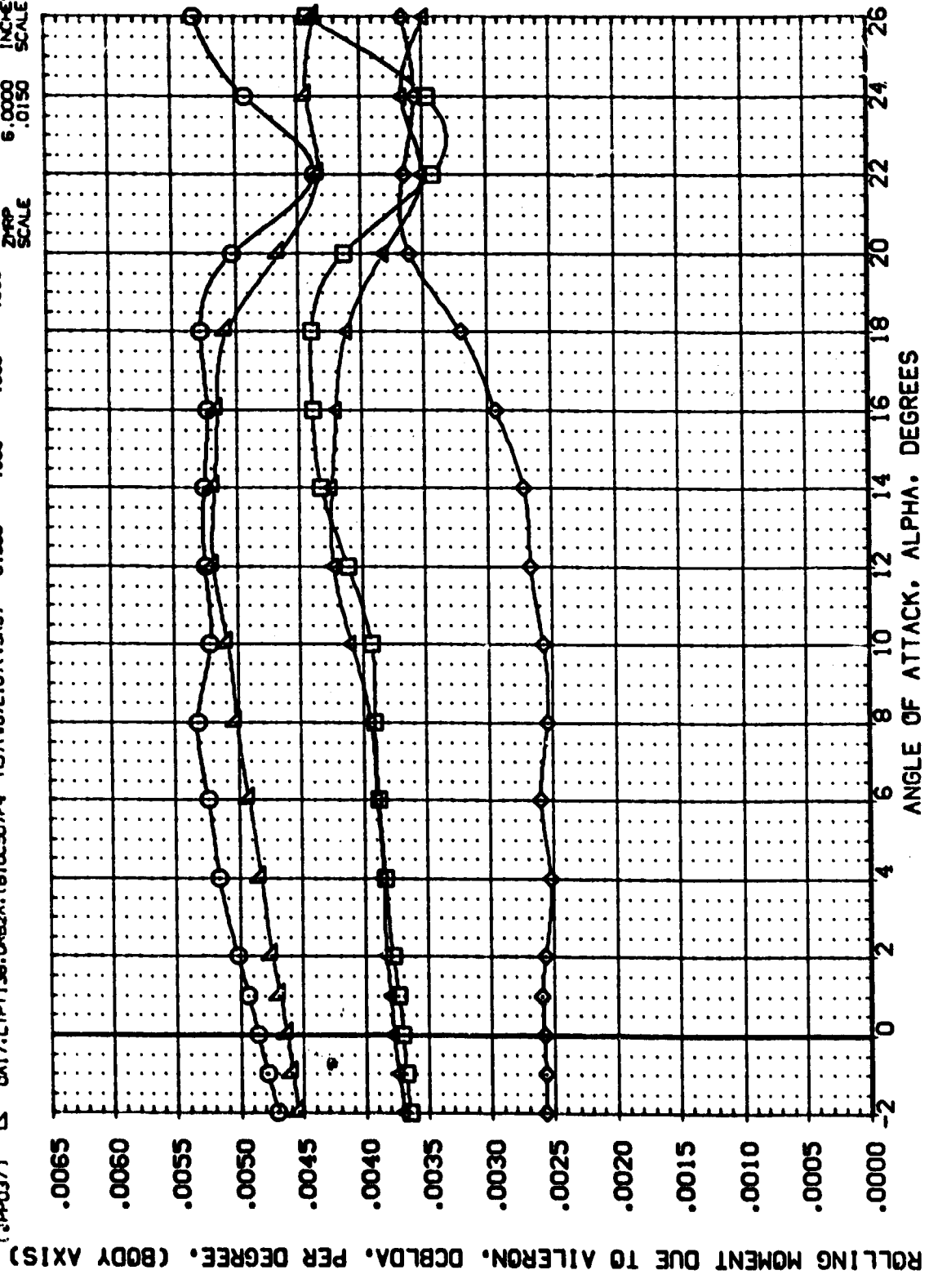


FIGURE 31 089B ORBITER AILERON EFFECTIVENESS DERIVATIVES

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DAILRN	ELEVON	BETA	RUDDER	REFERENCE INFORMATION
(JPO31)	DA17,LTPT138,CR82A,(B1DC507F4	4.400	.000	.000	.000	SREF 87.1560 SQ. IN.
(JPO33)	DA17,LTPT138,CR82A,(B1DC507F4	3.700	.000	.000	.000	LREF 19.9245 INCHES
(JPO39)	DA17,LTPT138,CR82A,(B1DC507F4	4.600	-9.500	.000	.000	BREF 14.0502 INCHES
(JPO34)	DA17,LTPT138,CR82A,(B1DC507F4	15.000	-19.500	.000	.000	YMRP 13.1469 INCHES
(JPO37)	DA17,LTPT138,CR82A,(B1DC507F4	8.900	.500	.000	.000	ZMRP 6.0000 INCHES
						SCALE .0150

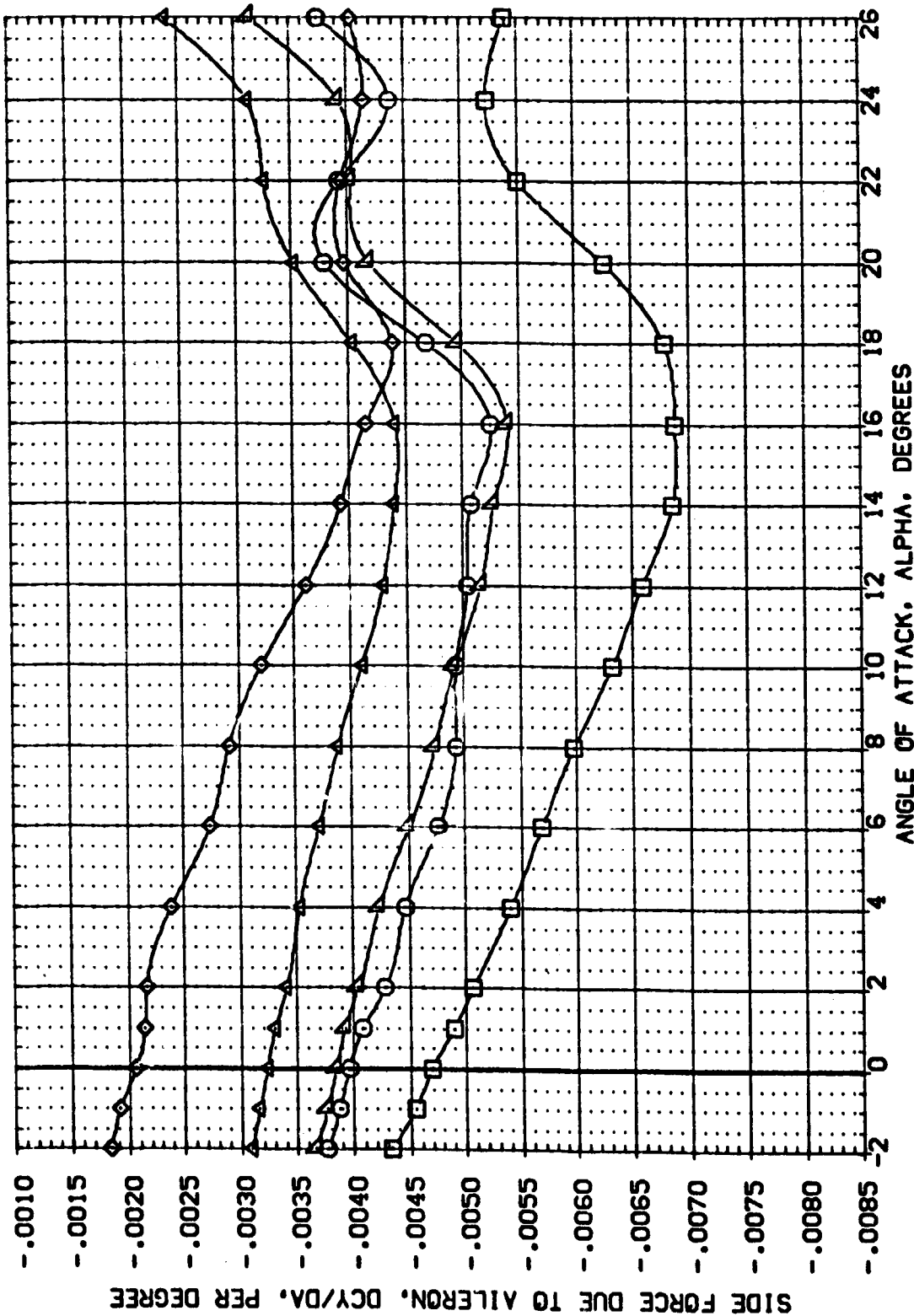


FIGURE 31 0898 ORBITER AILERON EFFECTIVENESS DERIVATIVES

(AJRN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DA17N	ELEVON	BETA	RUDDER	REFERENCE INFORMATION
(JPC031)	DA17, LTP1, 38, ORB2A, (B1OC507F4)	4.400	.000	.000	.000	SHEET 87.1560
(JPC032)	DA17, LTP1, 38, ORB2A, (B1OC507F4)	3.700	-9.500	.000	.000	LINE 19.5245
(JPC033)	DA17, LTP1, 38, ORB2A, (B1OC507F4)	4.600	-19.500	.000	.000	NOSES 14.0503
(JPC034)	DA17, LTP1, 38, ORB2A, (B1OC507F4)	15.000	.000	.000	.000	NOSES 13.1465
(JPC037)	DA17, LTP1, 38, ORB2A, (B1OC507F4)	8.900	.500	.000	.000	NOSES 6.0000
						NOSES 6.0000
						SCALE 6.0150

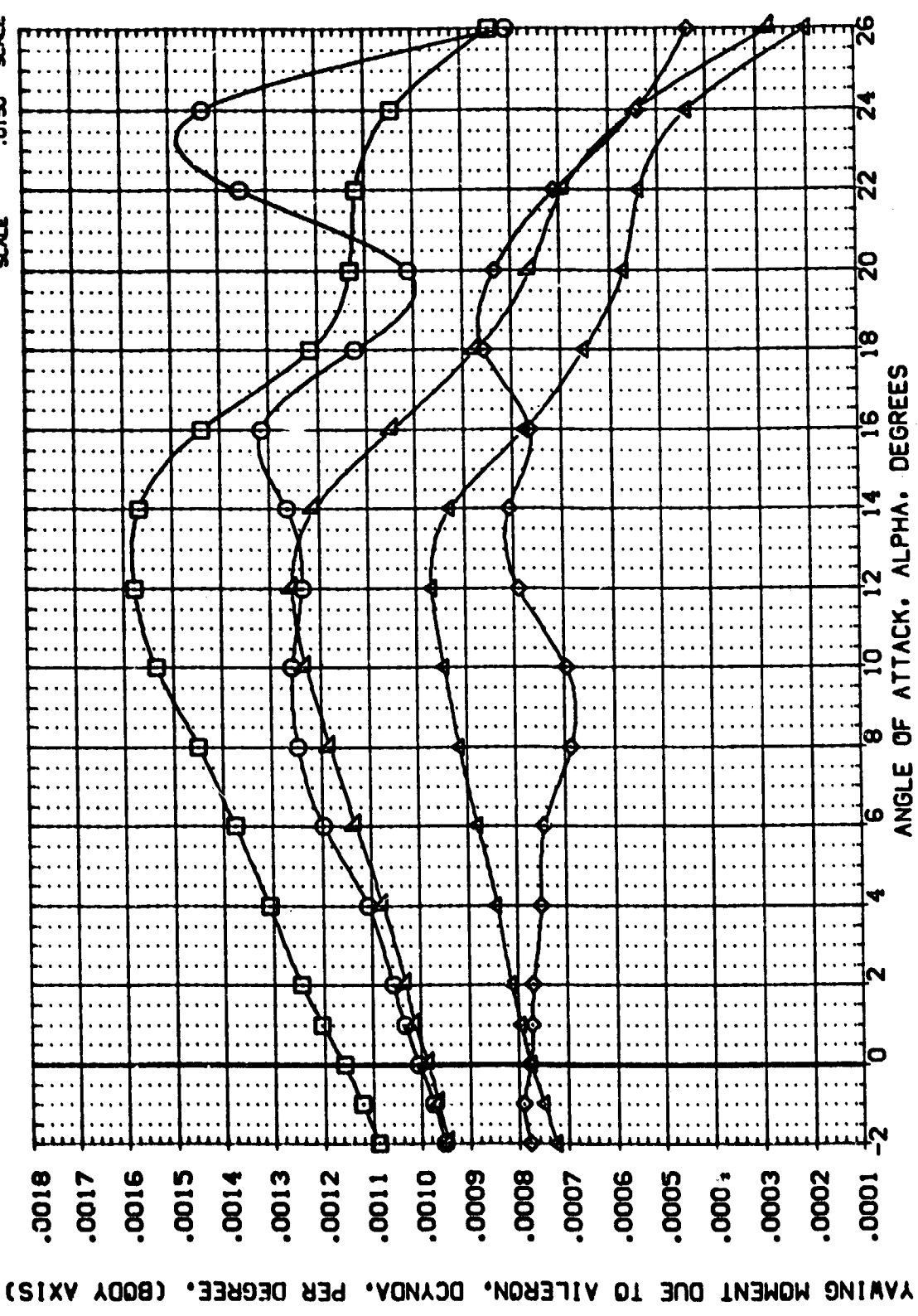


FIGURE 31 089B ORBITER AILERON EFFECTIVENESS DERIVATIVES

(A) RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DAI/LRN	ELEVON	BETA	RUDDER	REFERENCE INFORMATION
(JPP031)	DA17-LTPT138-CR82A (B10C507F4)	4.400	.000	.000	.000	SREF 87.1560 SQ. IN.
(JPP033)	DA17-LTPT138-CR82A (B10C507F4)	3.700	-9.600	.000	.000	LREF 19.9245 INCHES
(JPP033)	DA17-LTPT138-CR82A (B10C507F4)	4.600	-19.900	.000	.000	BREF 14.0502 INCHES
(JPP034)	DA17-LTPT138-CR82A (B10C507F4)	15.000	.000	.000	.000	XREF 13.1469 INCHES
(JPP037)	DA17-LTPT138-CR82A (B10C507F4)	8.900	.500	.000	.000	YREF 6.0000 INCHES
						ZREF .0150 SCALE

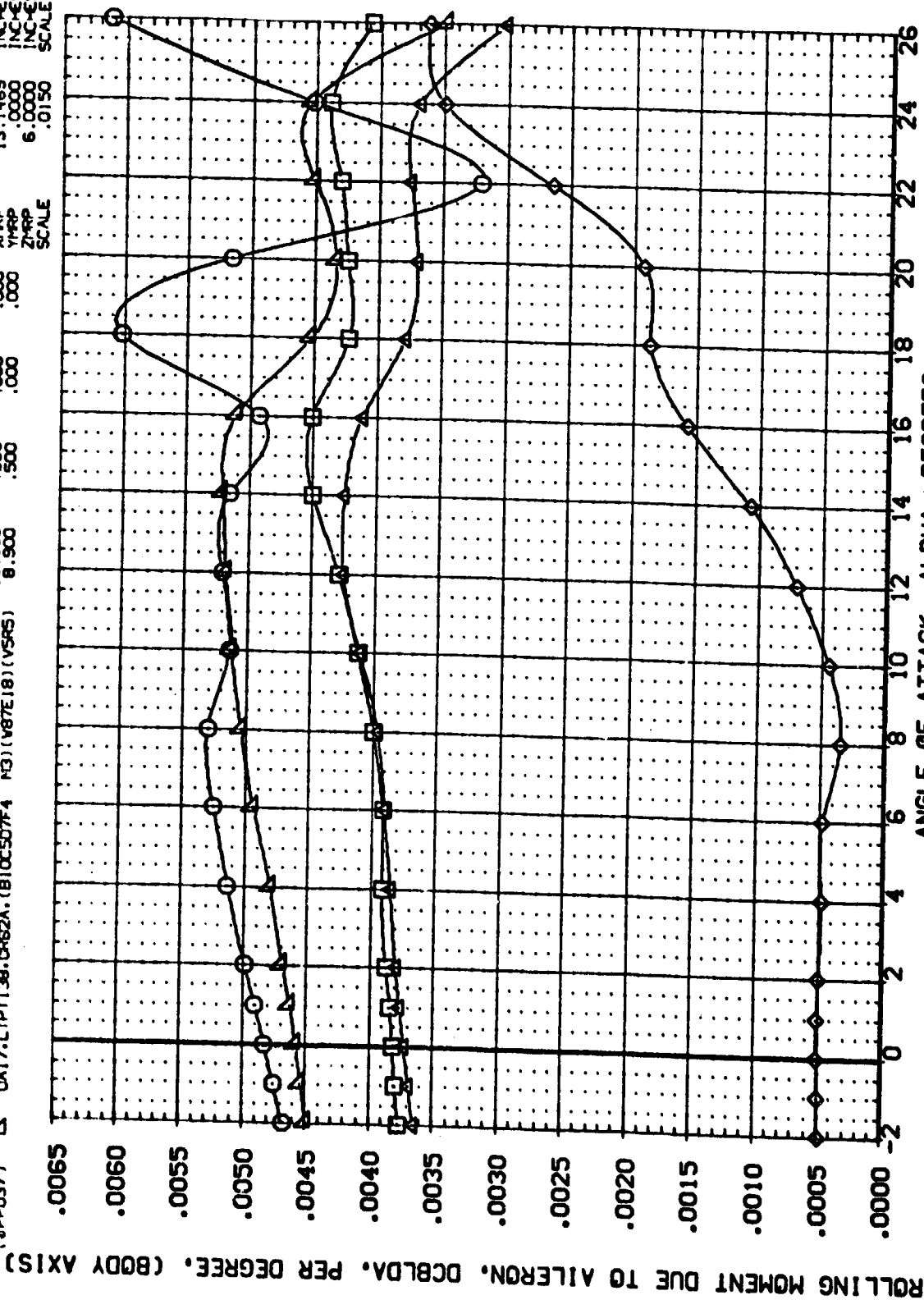


FIGURE 31 0898 ORBITER AILERON EFFECTIVENESS DERIVATIVES
(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	KG1(V67E18)(V5RS)	DALRN	ELEVON	BETA	RUDDER	REFERENCE INFORMATION
(.PP031)	DA17,LTPT138,DRB2A,(B10C507F4		4.400	.000	.000	.000	SREF 87.1560 50.1N.
(.PP033)	DA17,LTPT138,DRB2A,(B10C507F4		3.700	.000	.000	.000	LREF 19.9245 INOES
(.PP039)	DA17,LTPT138,DRB2A,(B10C507F4		4.600	-19.900	.000	.000	BREF 14.0502 INOES
(.PP034)	DA17,LTPT138,DRB2A,(B10C507F4		15.000	.000	.000	.000	XREF 13.1469 INOES
(.PP037)	DA17,LTPT138,DRB2A,(B10C507F4		8.900	.500	.000	.000	YREF .0000 INOES
							ZREF 6.0000 INOES
							SCALE .0150 SCALE

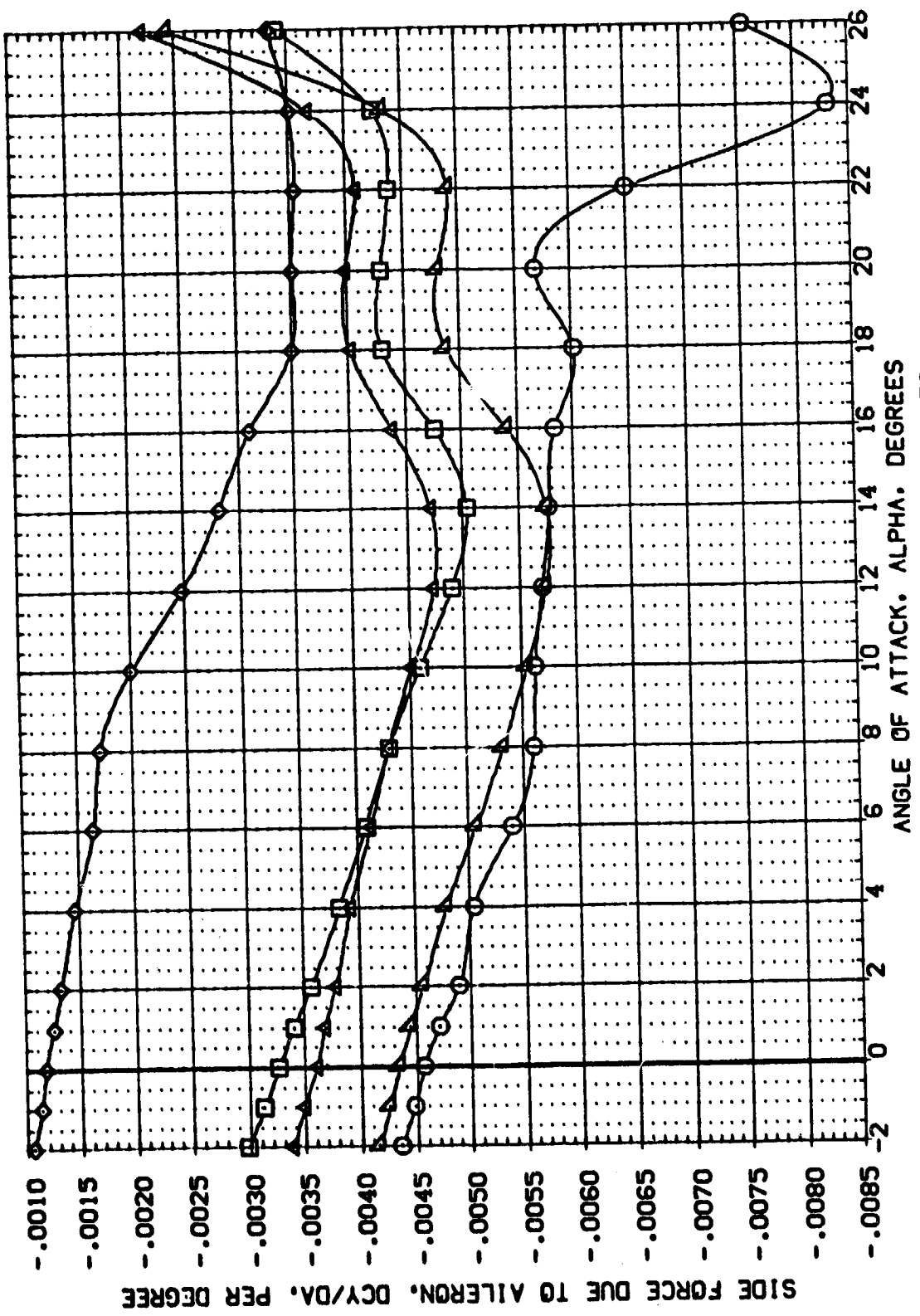


FIGURE 31 089B ORBITER AILERON EFFECTIVENESS DERIVATIVES

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	SPOOR	BETA	AIRLON	REFERENCE INFORMATION
(RPP027)	DA17.LTPT138.DR82A.(B10C507F4	.000	24.920	.000	.000	SREF 87.1560 SQ. IN.
(RPP028)	DA17.LTPT138.DR82A.(B10C507F4	-10.000	24.920	.000	.000	LREF 19.9245 INCHES
(RPP040)	DA17.LTPT138.DR82A.(B10C507F4	-20.000	24.920	.000	.000	BREF 14.0502 INCHES
						XMRP 13.1469 INCHES
						YMRP .0000 INCHES
						ZMRP 6.0000 INCHES
						SCALE .0150

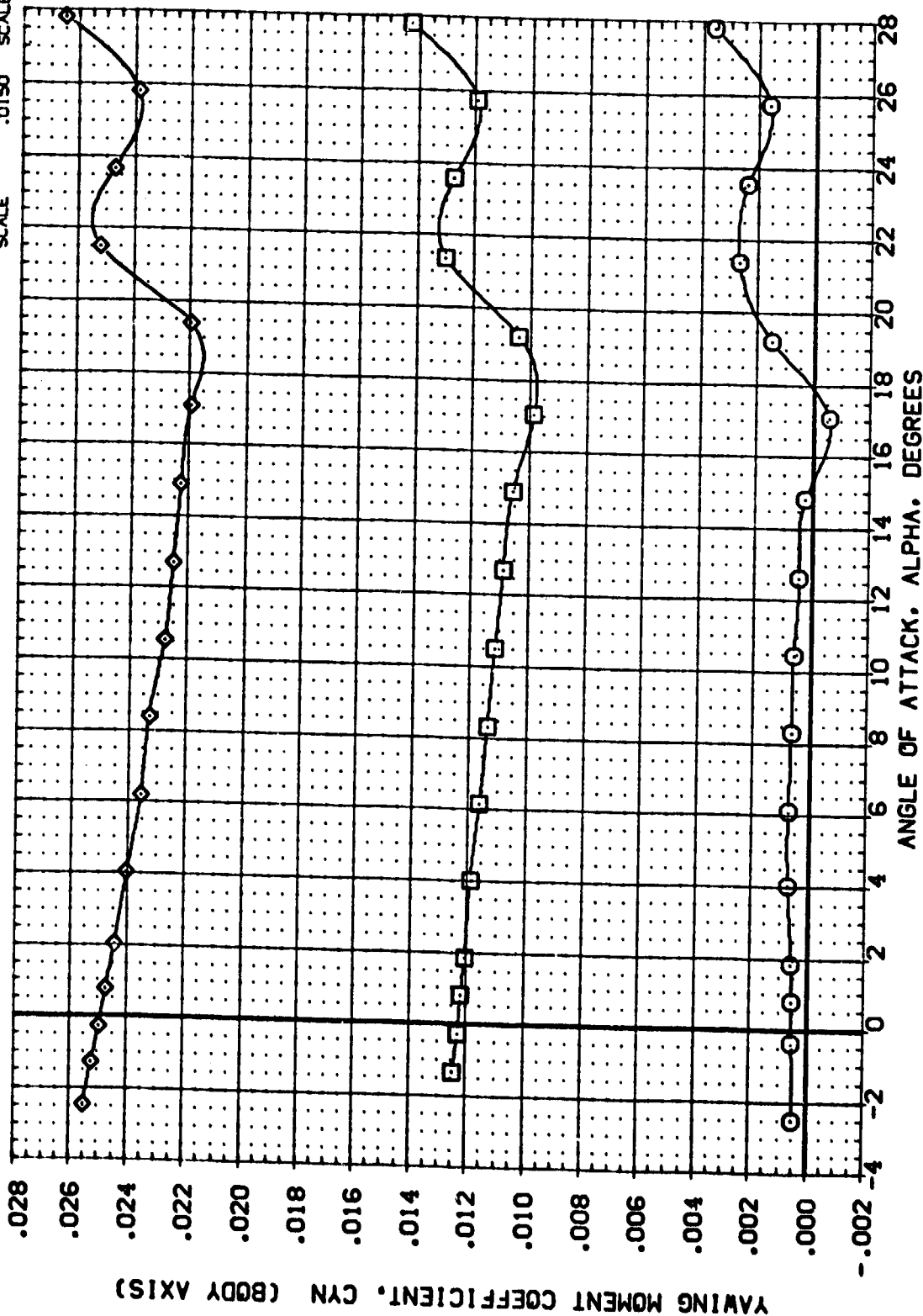


FIGURE 32 0898 ORBITER RUDDER DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	SPDBRK	BETA	AILRON	REFERENCE INFORMATION
(RPP027)	0A17.LTPT138.0RB2A.(B10C507F4	.000	24.920	.000	.000	SREF 87.1560 SO.IN.
(RPP028)	0A17.LTPT138.0RB2A.(B10C507F4	-10.000	24.920	.000	.000	LREF 19.9245 INCHES
(RPP040)	0A17.LTPT138.0RB2A.(B10C507F4	-20.000	24.920	.000	.000	BREF 14.0502 INCHES
						XTRP 13.1469 INCHES
						YTRP .0000 INCHES
						ZTRP 6.0000 INCHES
						SCALE .0150 SCALE

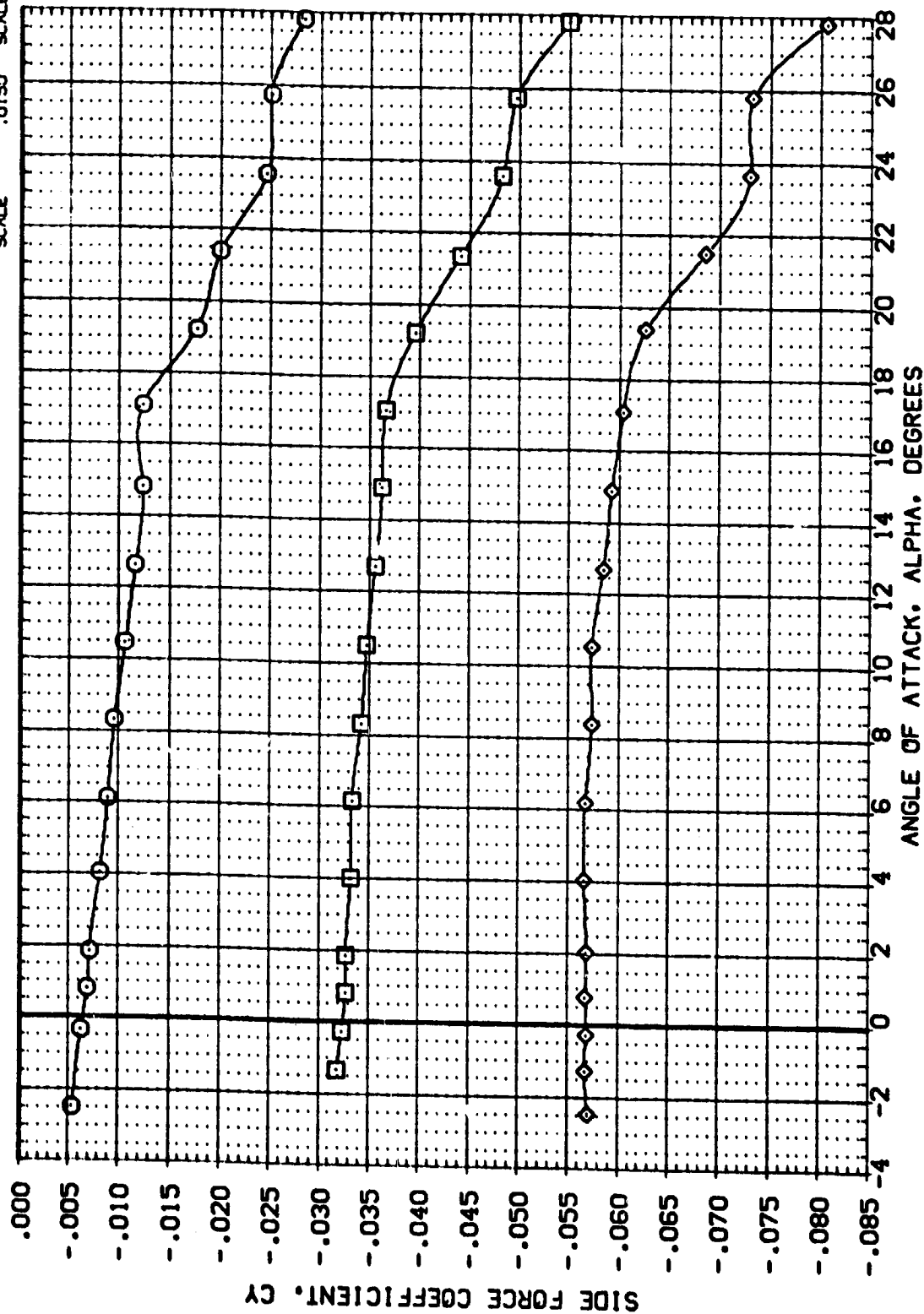


FIGURE 32 0898 ORBITER RUDDER DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	SPOBRK	BETA	AILRON	REFERENCE INFORMATION
(RPP027)	CA17ALTPT138-0882A-(810C507F4)	.000	24.920	.000	.000	SREF 87.1560 50. IN
(RPP028)	CA17ALTPT138-0882A-(810C507F4)	-10.000	24.920	.000	.000	LREF 19.9245 INCHES
(RPP040)	CA17ALTPT138-0882A-(810C507F4)	-20.000	24.920	.000	.000	BREF 14.0502 INCHES
						XREF 13.1469 INCHES
						YREF .0000 INCHES
						ZREF 6.0000 INCHES
						SCALE .0150

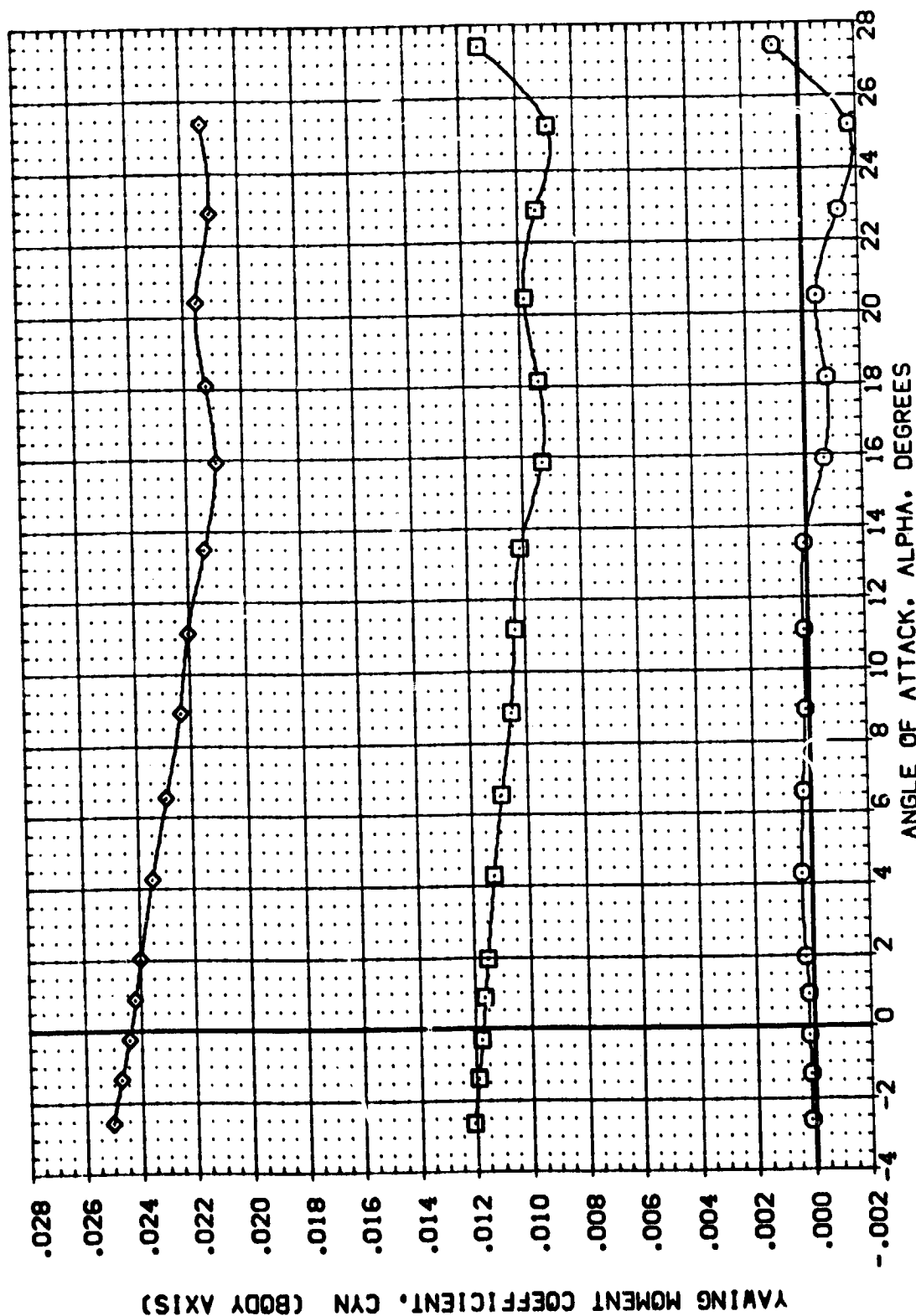


FIGURE 32 0898 ORBITER RUDDER DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	SPOBRK	BETA	AILRON	REFERENCE INFORMATION
(RPP027)	CA17.LTPT138.082A.(810C507F4	.000	24.920	.000	.000	SREF 87.1560 50. IN.
(RPP028)	CA17.LTPT138.082A.(810C507F4	-10.000	24.920	.000	.000	LREF 19.9245 INCHES
(RPP040)	CA17.LTPT138.082A.(810C507F4	-20.000	24.920	.000	.000	BREF 14.0502 INCHES
						XMRP 13.1459 INCHES
						YMRP 6.0000 INCHES
						ZMRP 6.0150 INCHES
						SCALE

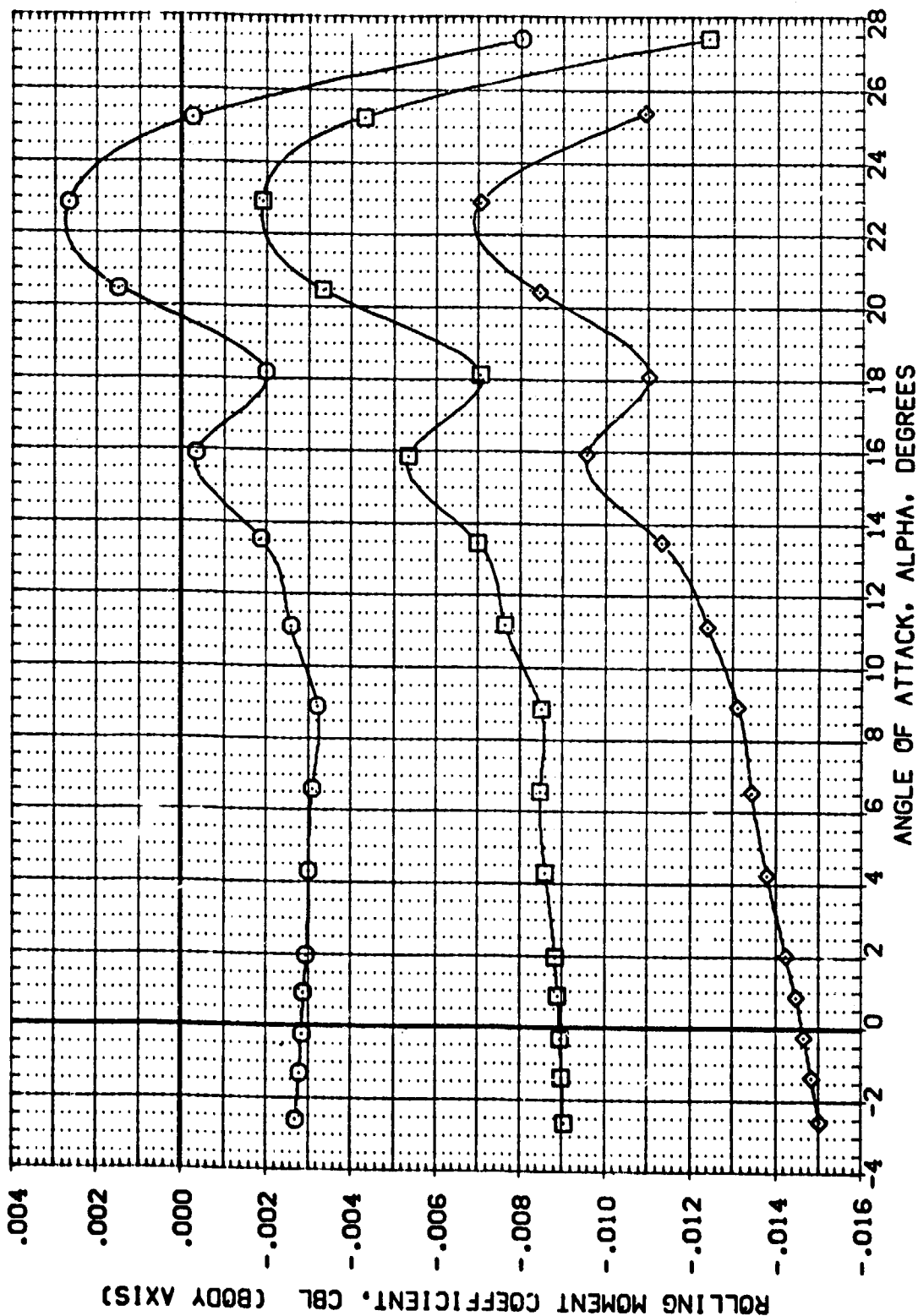


FIGURE 32 0898 ORBITER RUDDER DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	SPOILER	BETA	AILRON	REFERENCE INFORMATION
(RPP027)	Q117.LTPT138.ORB2A.(B10C507F4	.000	24.920	.000	.000	SREF 87.1560 SO.IN.
(RPP028)	Q117.LTPT138.ORB2A.(B10C507F4	-10.000	24.920	.000	.000	LREF 19.9245 INCHES
(RPP040)	Q117.LTPT138.ORB2A.(B10C507F4	-20.000	24.920	.000	.000	BREF 14.0502 INCHES
						YREF 13.1469 INCHES
						YREF 6.0000 INCHES
						ZREF 6.0150 INCHES
						SCALE

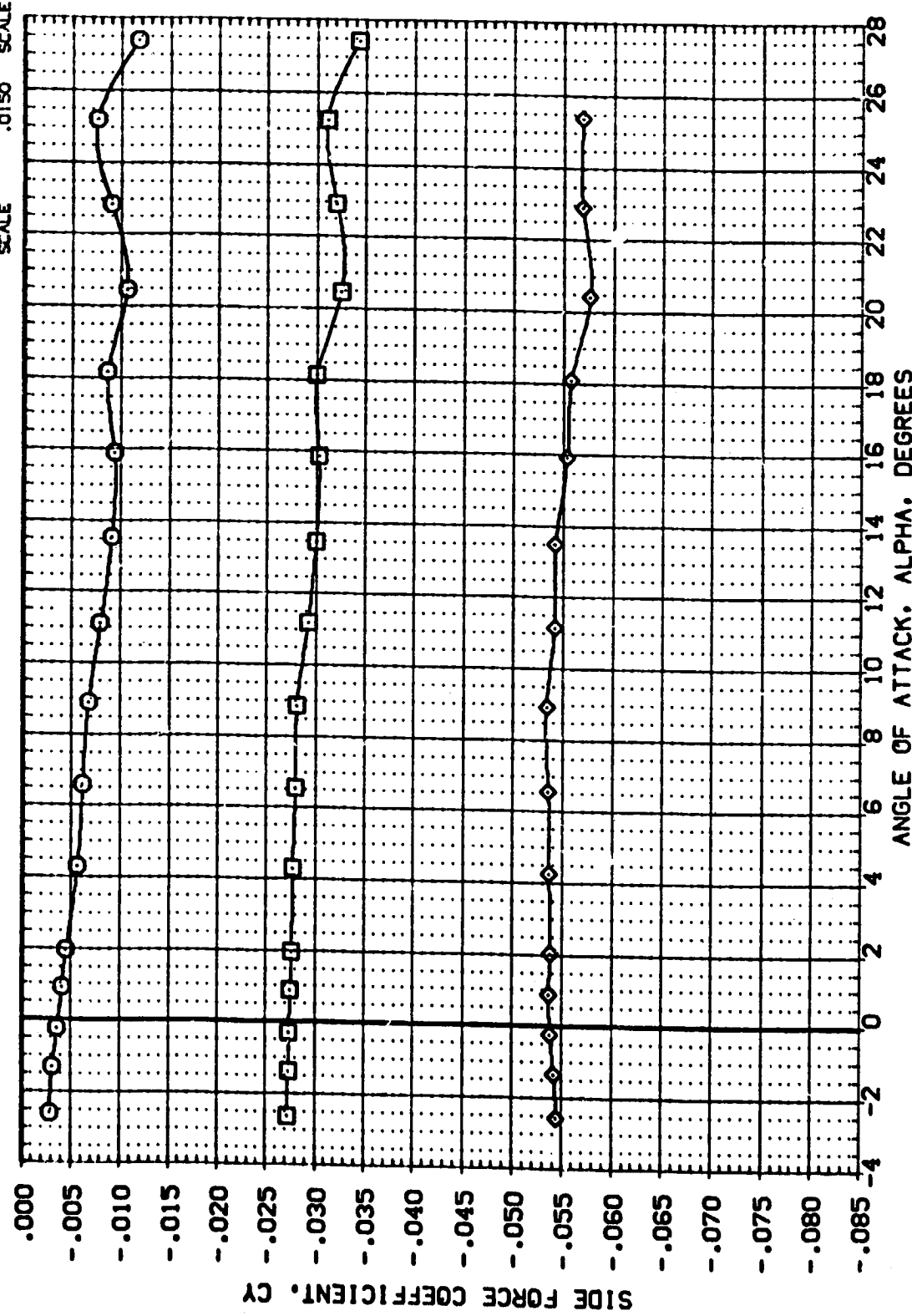


FIGURE 32 089B ORBITER RUDDER DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET SYMBOL: (JPP028) (PP040)

CONFIGURATION DESCRIPTION: 0A17.LTPT138.0882A.1810C307F4 0A17.LTPT138.0882A.1810C307F4

ORDER: 24.920 24.920

BETA: .000 .000

AILRON: .000 .000

REFERENCE INFORMATION:

	87.1560	50.1560
SREF	19.9245	INCHES
LREF	14.0502	INCHES
BREF	13.1469	INCHES
YPRP	.0000	INCHES
ZPRP	6.0000	INCHES
SCALE	.0150	SCALE

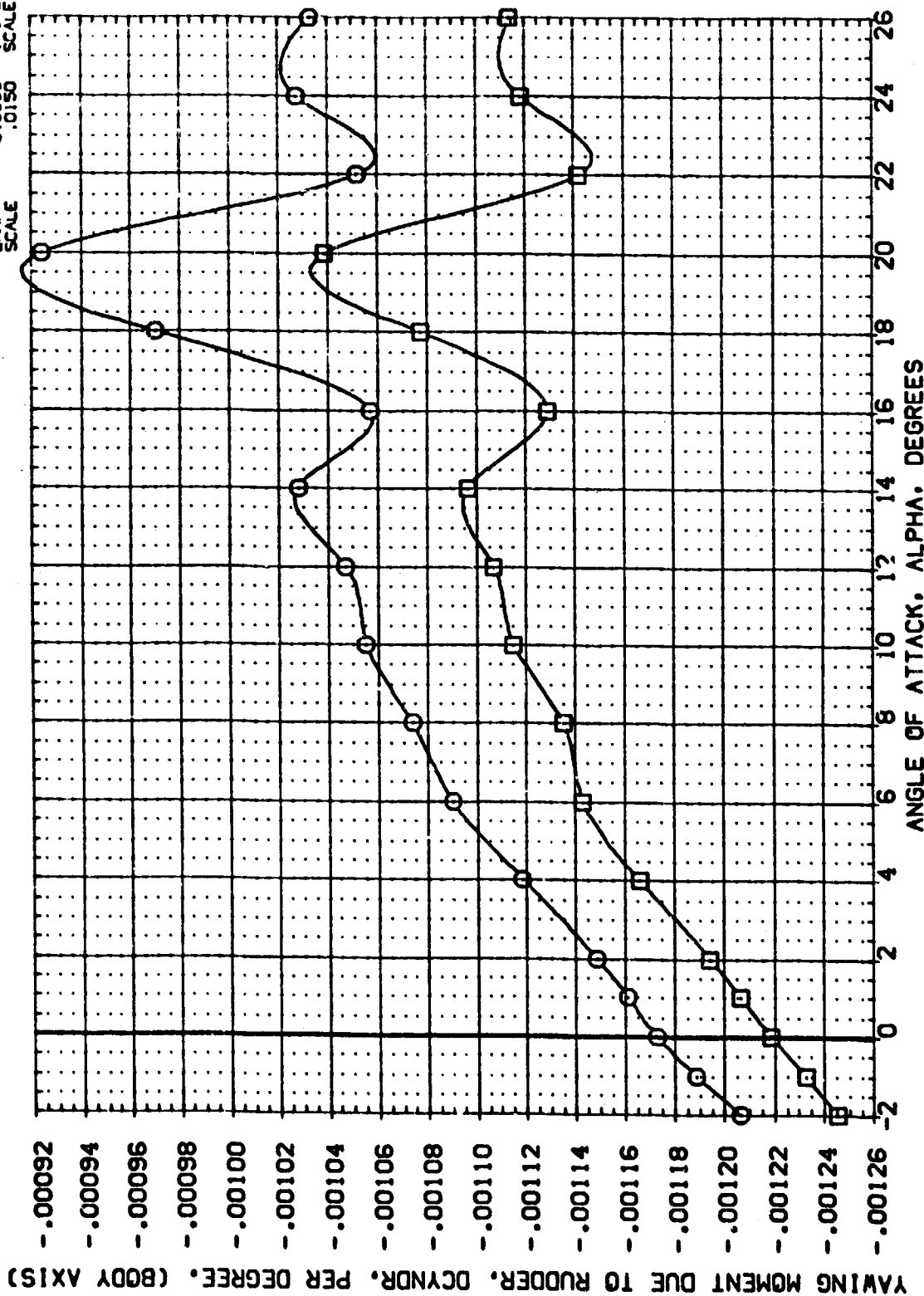


FIGURE 33 089B ORBITER RUDDER EFFECTIVENESS DERIVATIVES

(A)RN/L = 4.70



DATA SET SYMBOL: 0170138-0882A (810C507F4)
 CONFIGURATION DESCRIPTION: 0170138-0882A (810C507F4)
 ORDER: -10.000
 SPOROK: 24.520
 BETA: .000
 AILRON: .000
 REFERENCE INFORMATION:
 SREF: 87.1500 INCHES
 LREF: 19.5245 INCHES
 XREF: 14.0502 INCHES
 YREF: 13.1459 INCHES
 ZREF: 6.0000 INCHES
 SCALE: .0150

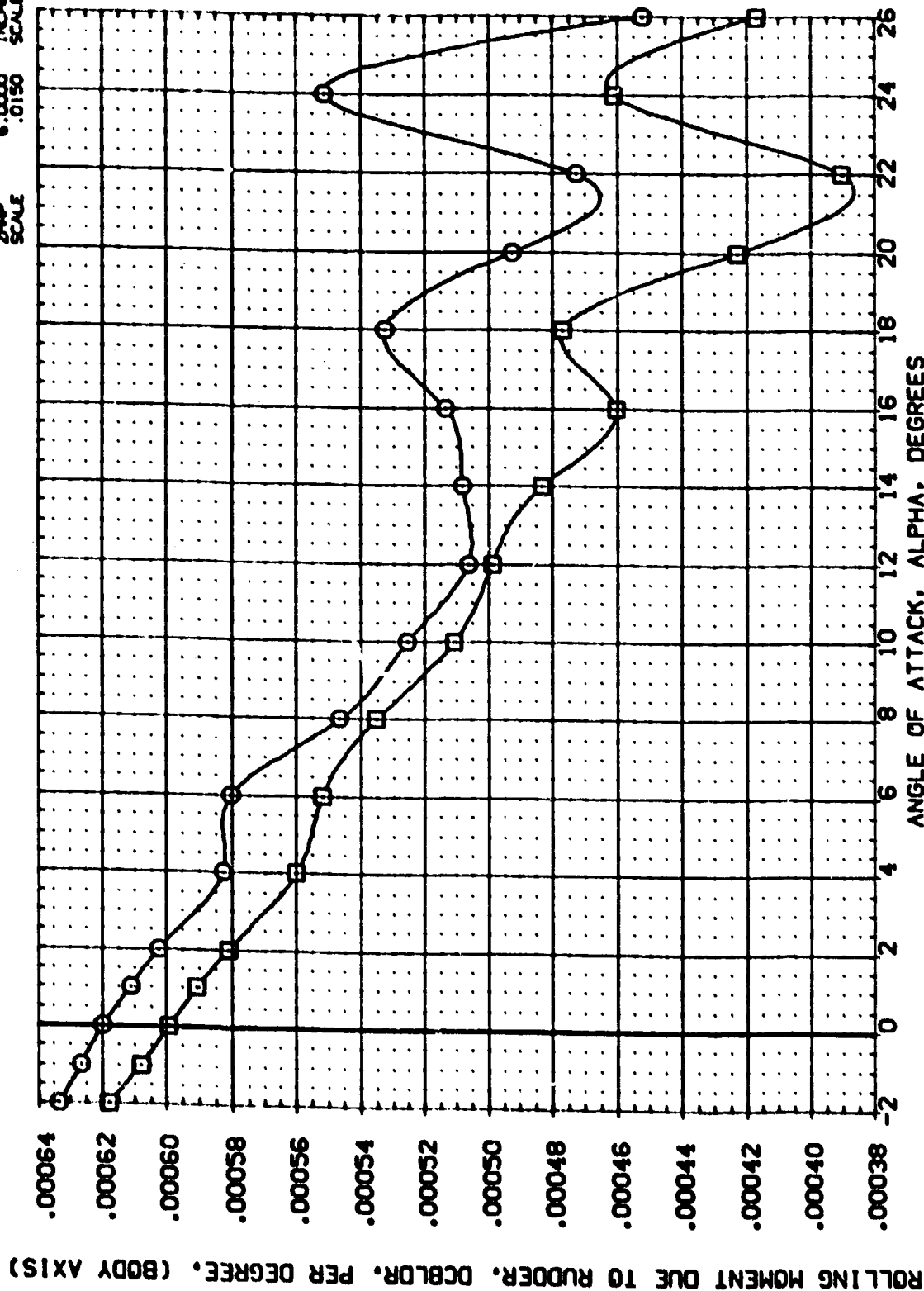


FIGURE 33 0898 ORBITER RUDDER EFFECTIVENESS DERIVATIVES

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DRUDDER	SPOILER	BETA	AILRON	REFERENCE INFORMATION
(.PP028)	0A17.L1PT136.0882A.(8)0C507F4	PO)(V87E18)(V885)	-10.000	.000	.000	SREF 87.1560 SO.IN.
(.PP040)	0A17.L1PT136.0882A.(8)0C507F4	PO)(V87E18)(V885)	-20.000	.000	.000	LREF 19.8245 INO-ES
						BREF 14.0502 INO-ES
						YREF 13.1469 INO-ES
						ZREF 6.0000 INO-ES
						SCALE .0150 SCALE

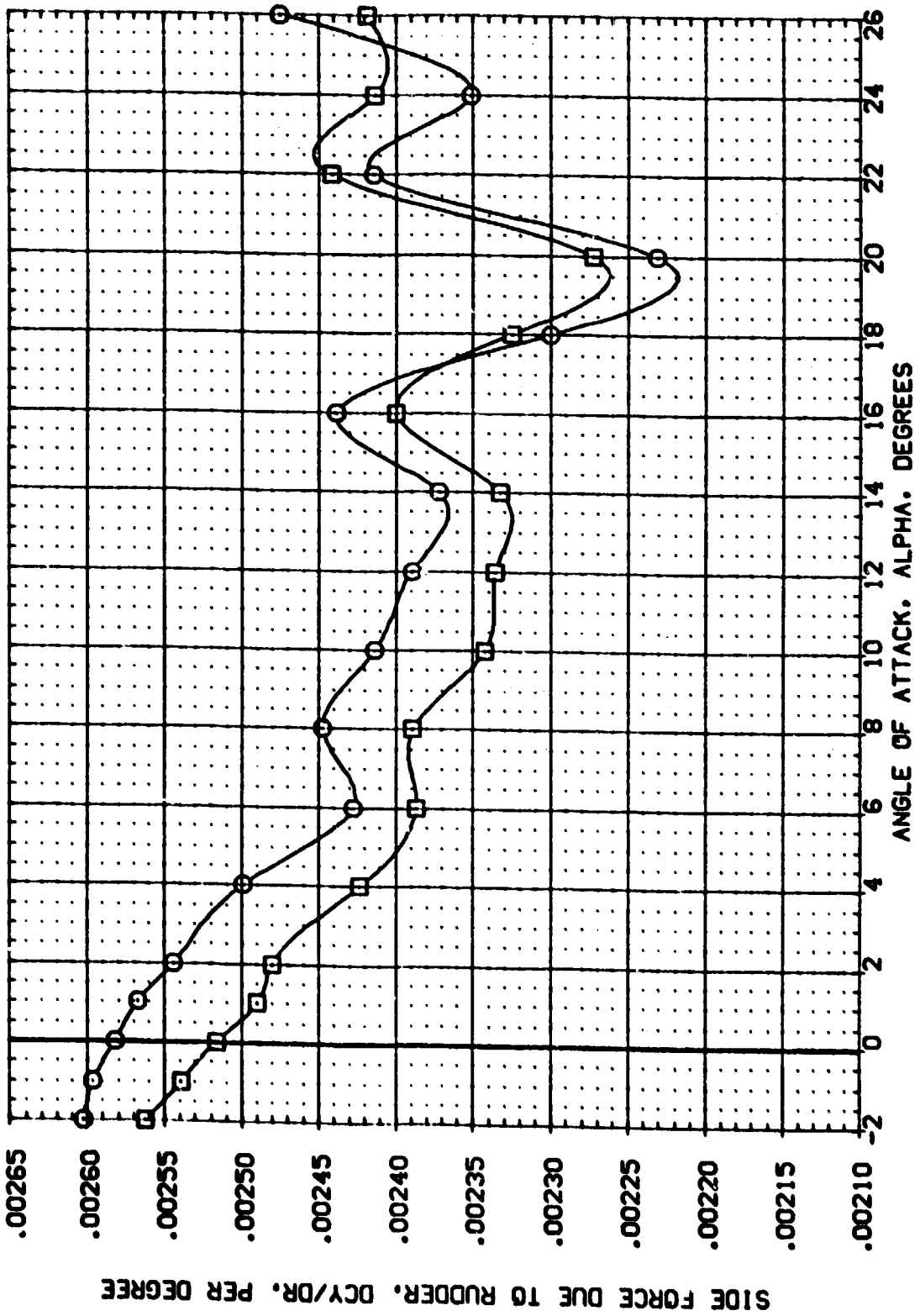



FIGURE 33 0898 ORBITER RUDDER EFFECTIVENESS DERIVATIVES

(A)RN/L = 4.70



DATA SET SYMBOL:  CONFIGURATION DESCRIPTION: GA17.LTPT138.D882A.(B1DC507F4) MG1(V87E18)(V8R5) DRUGER SPOROK BETA AILRON REFERENCE INFORMATION: SO IN: 87.1580 INCHES; LIFT: 19.5243 INCHES; BREF: 14.0502 INCHES; XREF: 13.1468 INCHES; YREF: .0000 INCHES; ZREF: 6.0000 INCHES; SCALE: .0150

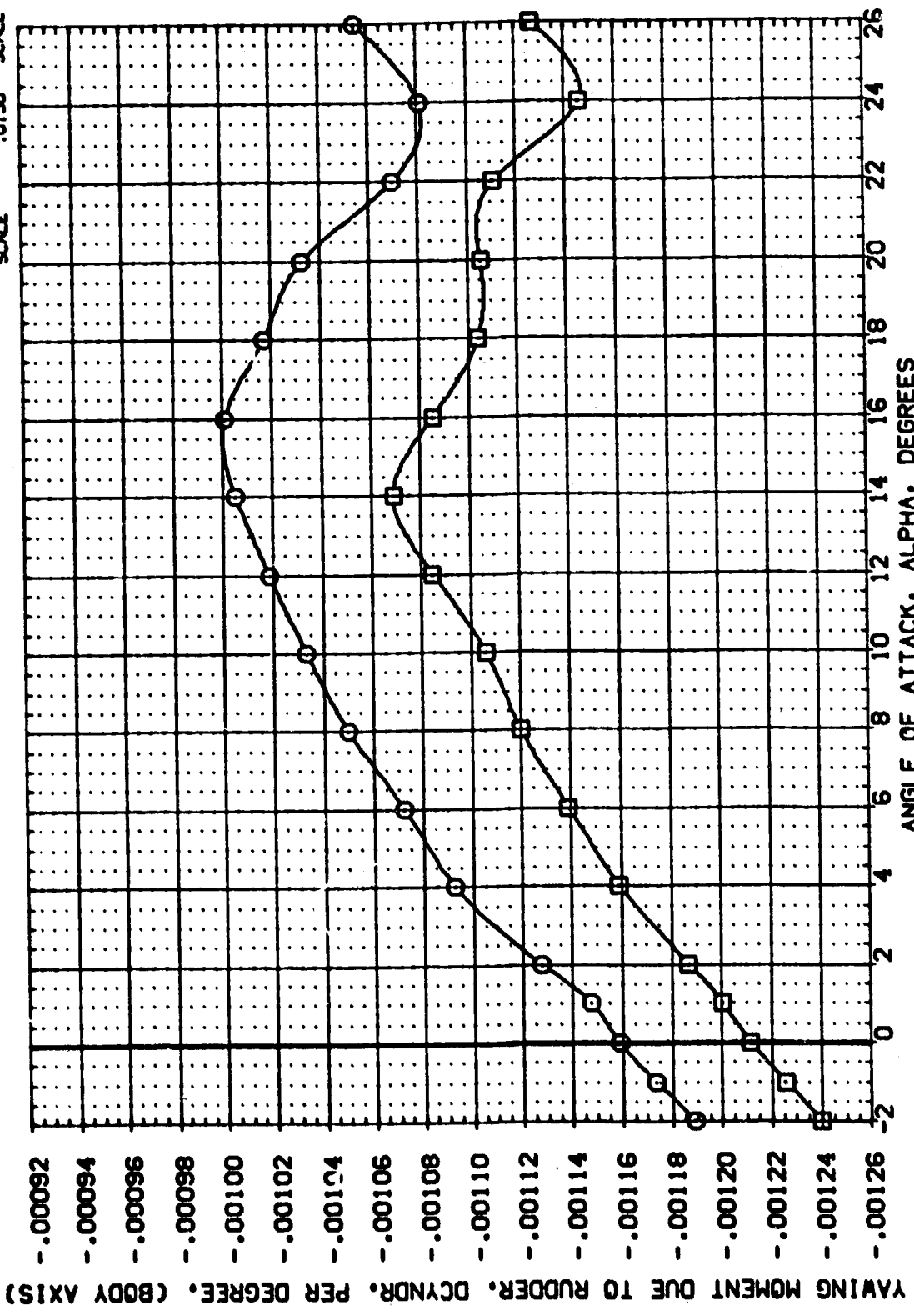


FIGURE 33 089B ORBITER RUDDER EFFECTIVENESS DERIVATIVES

(A)RN/L = 10.00

DATA SET SYMBOL: 017-138-082A (8100507F4) 017-138-082A (8100507F4)

CONFIGURATION DESCRIPTION: 017-138-082A (8100507F4) 017-138-082A (8100507F4)

DRUGER: 24.920 24.920

BETA: .000 .000

AIRBOR: .000 .000

REFERENCE INFORMATION:

REF	87.1560	50. IN.
REF	19.9245	INCHES
REF	14.0502	INCHES
REF	13.1469	INCHES
REF	.0000	INCHES
REF	6.0000	INCHES
REF	.0150	INCHES

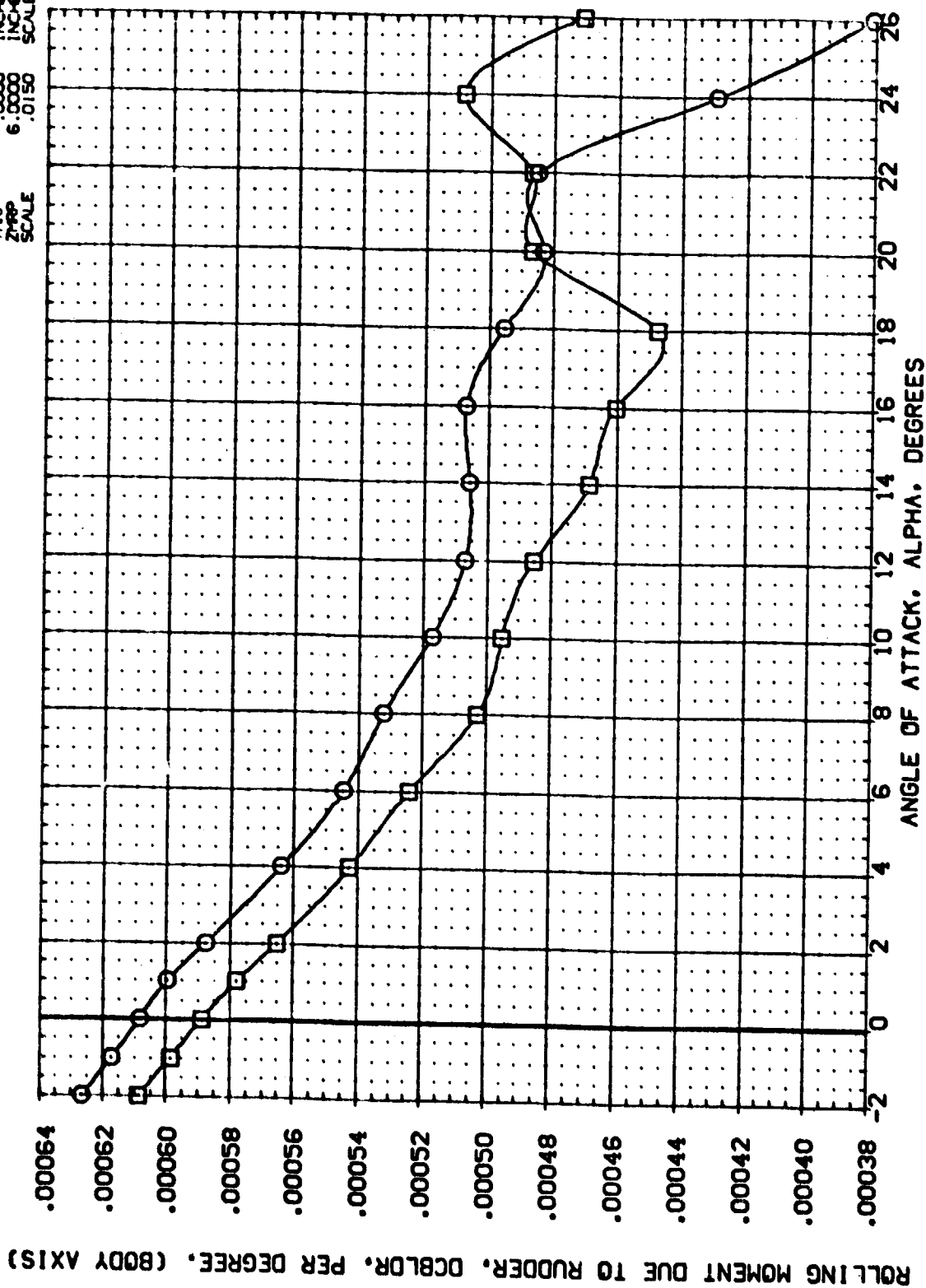


FIGURE 33 089B ORBITER RUDDER EFFECTIVENESS DERIVATIVES
(AJRN/L = 10.00)

DATA SET SYMBOL: (JPC028) (JPC040) CONFIGURATION DESCRIPTION: DA17.LTPT138.DR2A.(810C507F4) DA17.LTPT138.DR2A.(810C507F4) DR100R: -10.000 -20.000 SPDRBK: 24.920 24.920 BETA: .000 .000 ALLDRN: .000 .000 REFERENCE INFORMATION: SREF: 87.1560 SQ.IN: 50.1167E1811VSRS) 19.9245 INCHES: 14.0502 INCHES: 13.1469 INCHES: 6.0000 INCHES: 6.0000 INCHES: .0150 SCALE

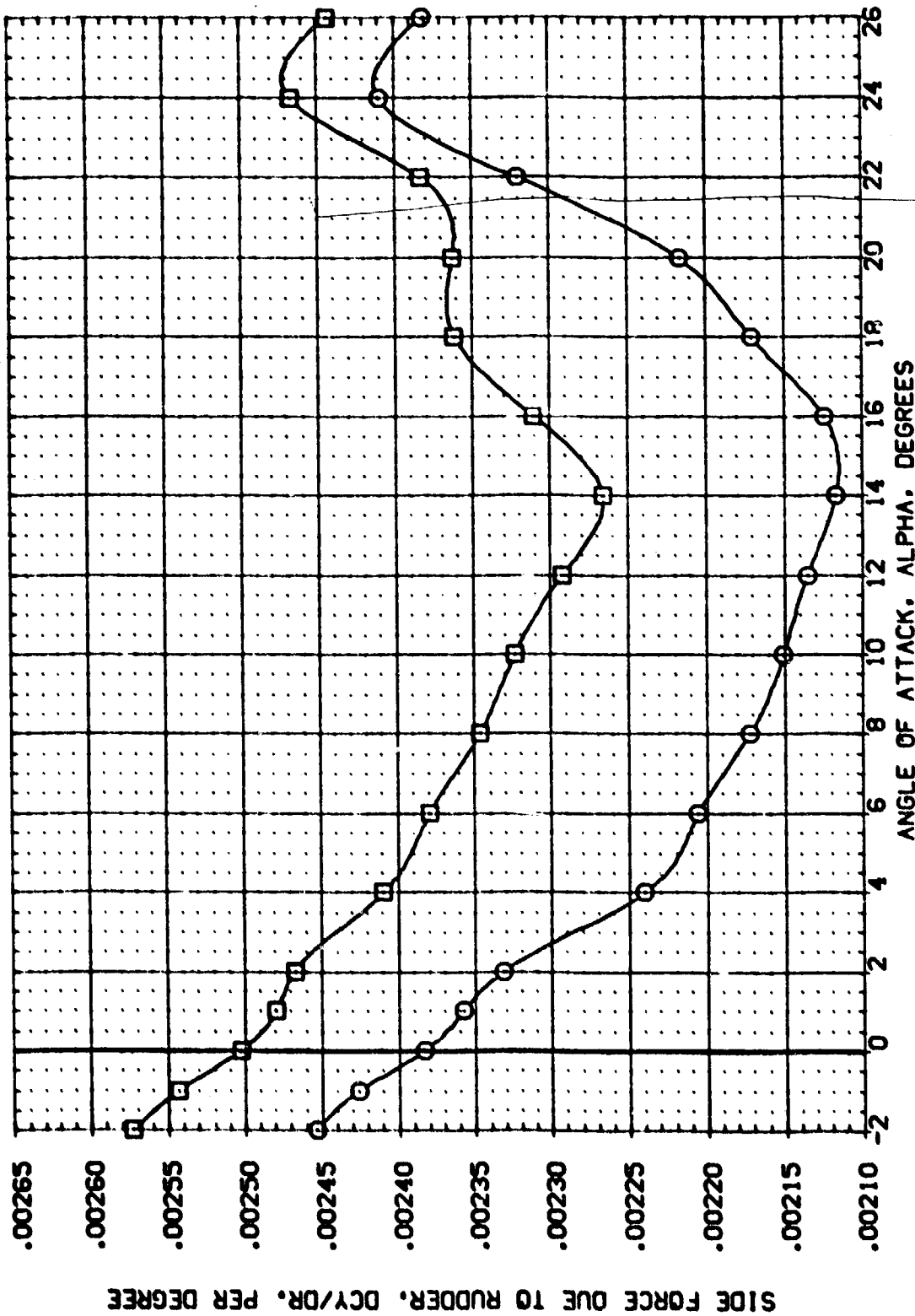


FIGURE 33 0898 ORBITER RUDDER EFFECTIVENESS DERIVATIVES

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPDBRK	RUDDER	REFERENCE INFORMATION
(RPP028)	DA17,LTPT138,CR82A,(B1DC507F4	.000	-14.250	24.920	-10.000	SREF 87.1560 SO.IN.
(RPP025)	DA17,LTPT138,CR82A,(B1DC507F4	.000	-14.250	.000	-10.000	LREF 19.9245 INC-ES
(RPP024)	DA17,LTPT138,CR82A,(B1DC507F4	.000	-14.250	54.920	-10.000	BREF 14.0502 INC-ES
(RPP042)	DA17,LTPT138,CR82A,(B1DC507F4	.000	-14.250	84.920	-10.000	XREF 13.1469 INC-ES
						YREF .0000 INC-ES
						ZREF .0000 INC-ES
						SCALE .0150

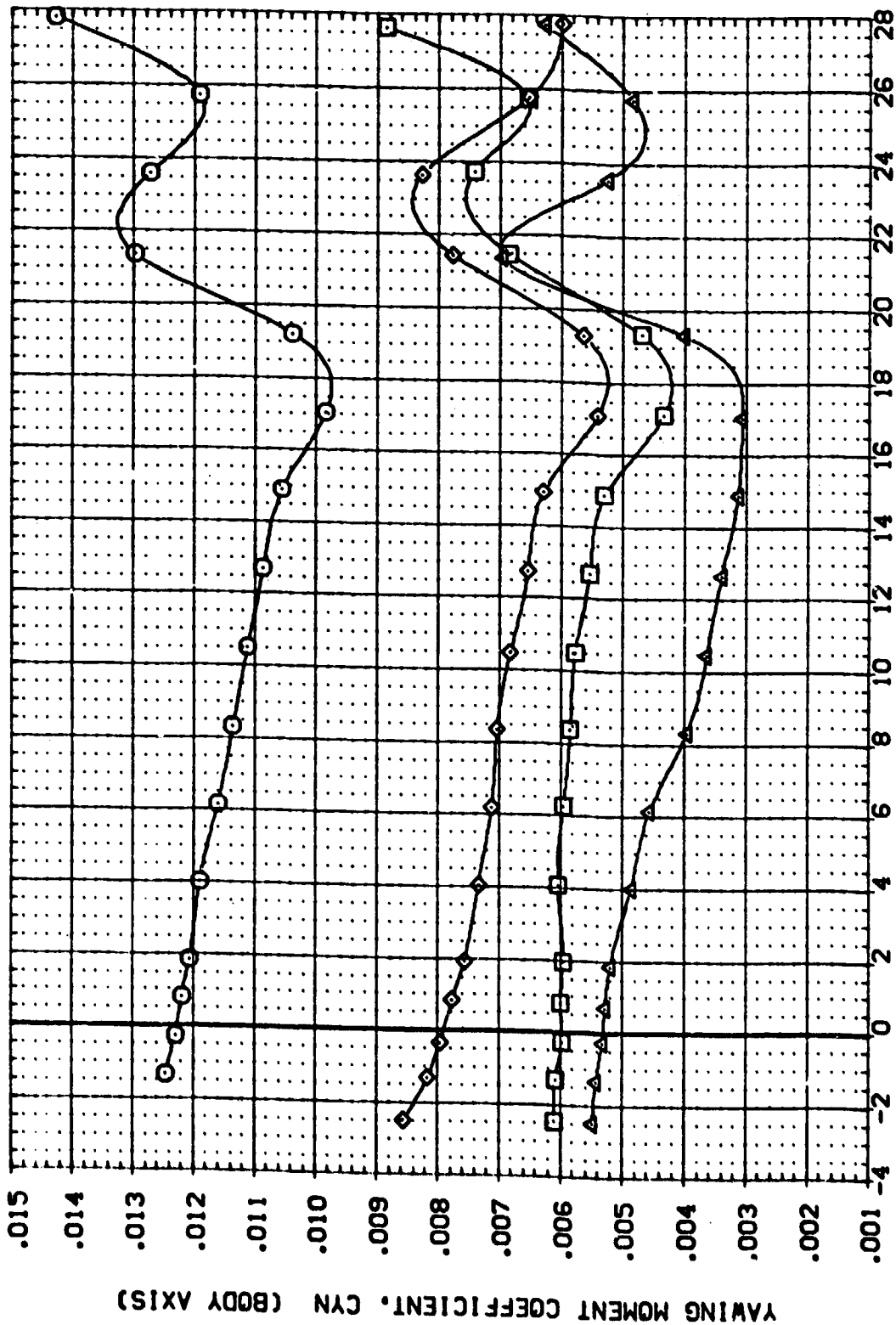


FIGURE 34 089B ORBITER COMBINED SPEED BRAKE AND RUDDER DEFLECTION EFFECTS

(A)RN/L = 4.70



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BDFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(RPPC28)	□	CA17.LTPT138.0R82A.(B1DC507F4	.000	-14.250	24.920	-10.000	SREF 87.1550 50.10
(RPPC25)	◇	CA17.LTPT138.0R82A.(B1DC507F4	.000	-14.250	34.000	-10.000	UREF 19.9745 10.00
(RPPC24)	◇	CA17.LTPT138.0R82A.(B1DC507F4	.000	-14.250	54.920	-10.000	BREF 14.0502 10.00
(RPPC42)	◇	CA17.LTPT138.0R82A.(B1DC507F4	.000	-14.250	84.920	-10.000	XREF 13.1469 10.00
							YREF 6.0000 10.00
							ZREF 6.0150 10.00
							SCALE

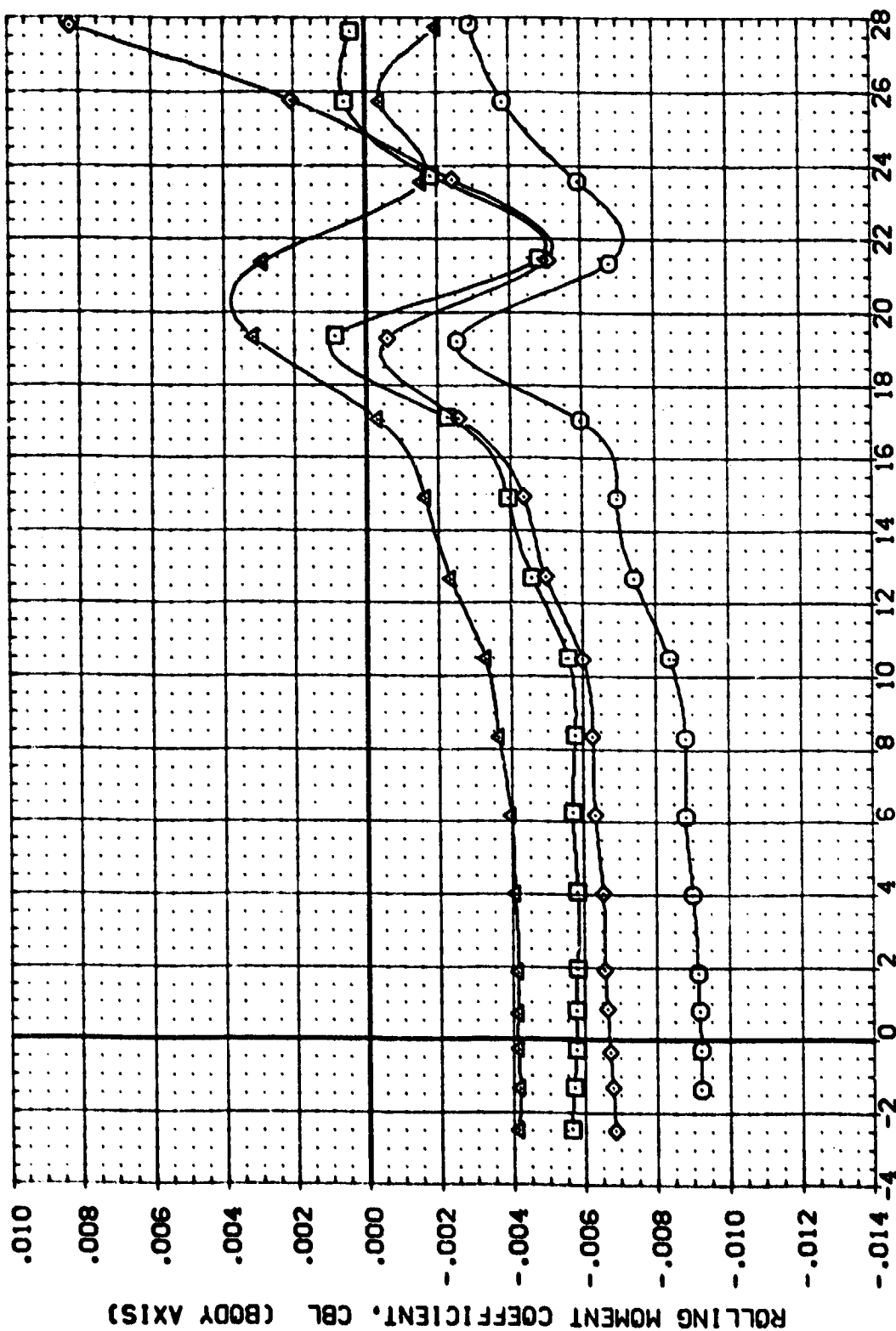


FIGURE 34 089B ORBITE COMBINED SPEED BRAKE AND RUDDER DEFLECTION EFFECTS

(A)RN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(RPP028)	CA17.LTPT138.082A.(810C507F4	.000	-14.250	24.520	-10.000	SREF 87.1560 SO.IN
(RPP025)	CA17.LTPT138.082A.(810C507F4	.000	-14.250	.000	-10.000	LREF 19.5245 INCHES
(RPP024)	CA17.LTPT138.082A.(810C507F4	.000	-14.250	54.520	-10.000	BREF 14.0502 INCHES
(RPP042)	CA17.LTPT138.082A.(810C507F4	.000	-14.250	84.520	-10.000	XREF 13.1469 INCHES
						YREF .0000 INCHES
						ZREF .0000 INCHES
						SCALE .0150

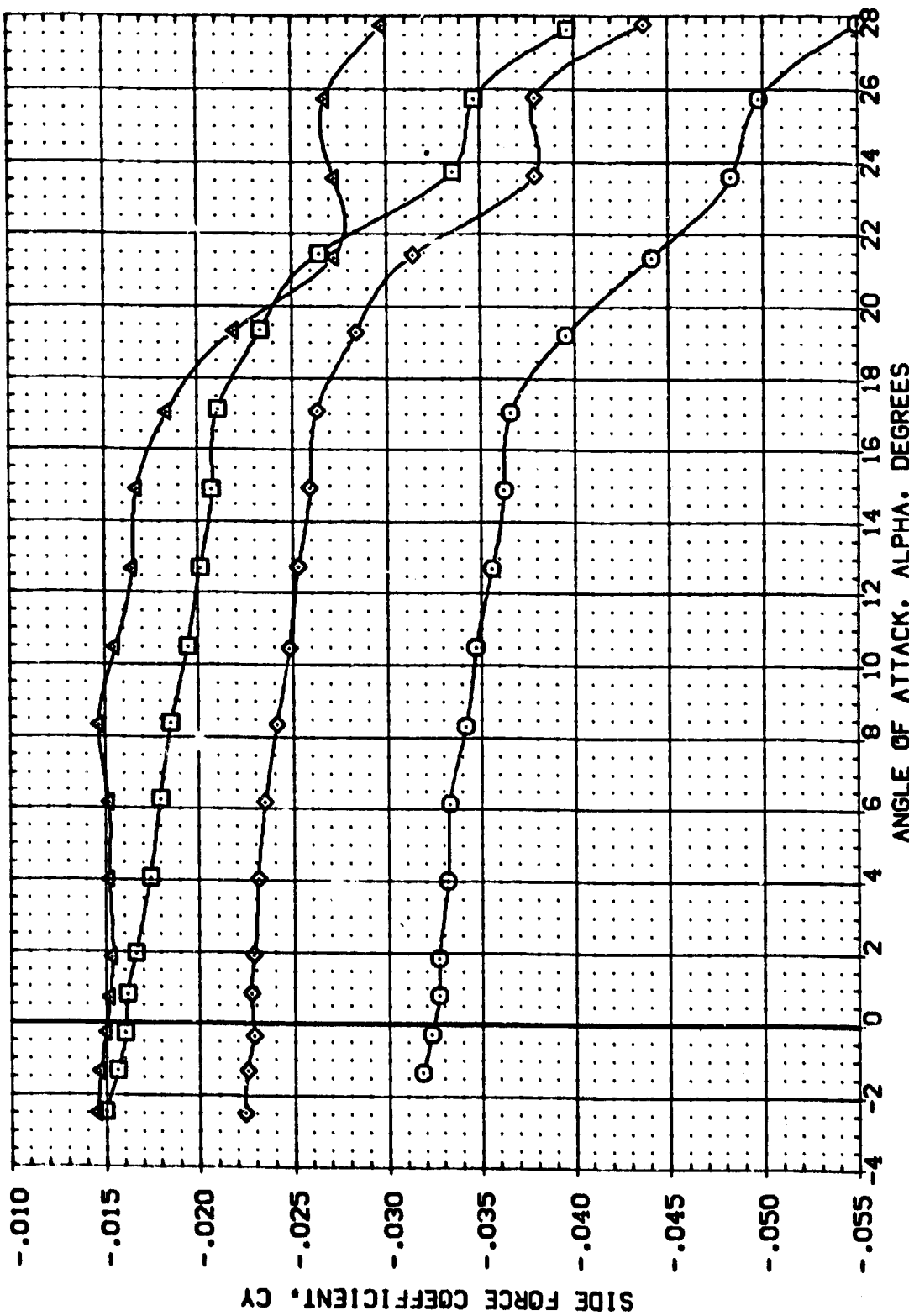


FIGURE 34 0898 ORBITER COMBINED SPEED BRAKE AND RUDDER DEFLECTION EFFECTS

(AJRN/L = 4.70

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(RPP028)	GA17.LTPT138.0R82A.(B10C507F4	.000	-14.250	24.920	-10.000	SREF 87.1560 50. IN.
(RPP029)	GA17.LTPT138.0R82A.(B10C507F4	.000	-14.250	.000	-10.000	LREF 19.9245 INCHES
(RPP032)	GA17.LTPT138.0R82A.(B10C507F4	.000	-14.250	54.920	-10.000	BREF 14.0502 INCHES
(RPP042)	GA17.LTPT138.0R82A.(B10C507F4	.000	-14.250	84.920	-10.000	XREF 13.1459 INCHES
						YREF .0000 INCHES
						ZREF .0000 INCHES
						SCALE .0150

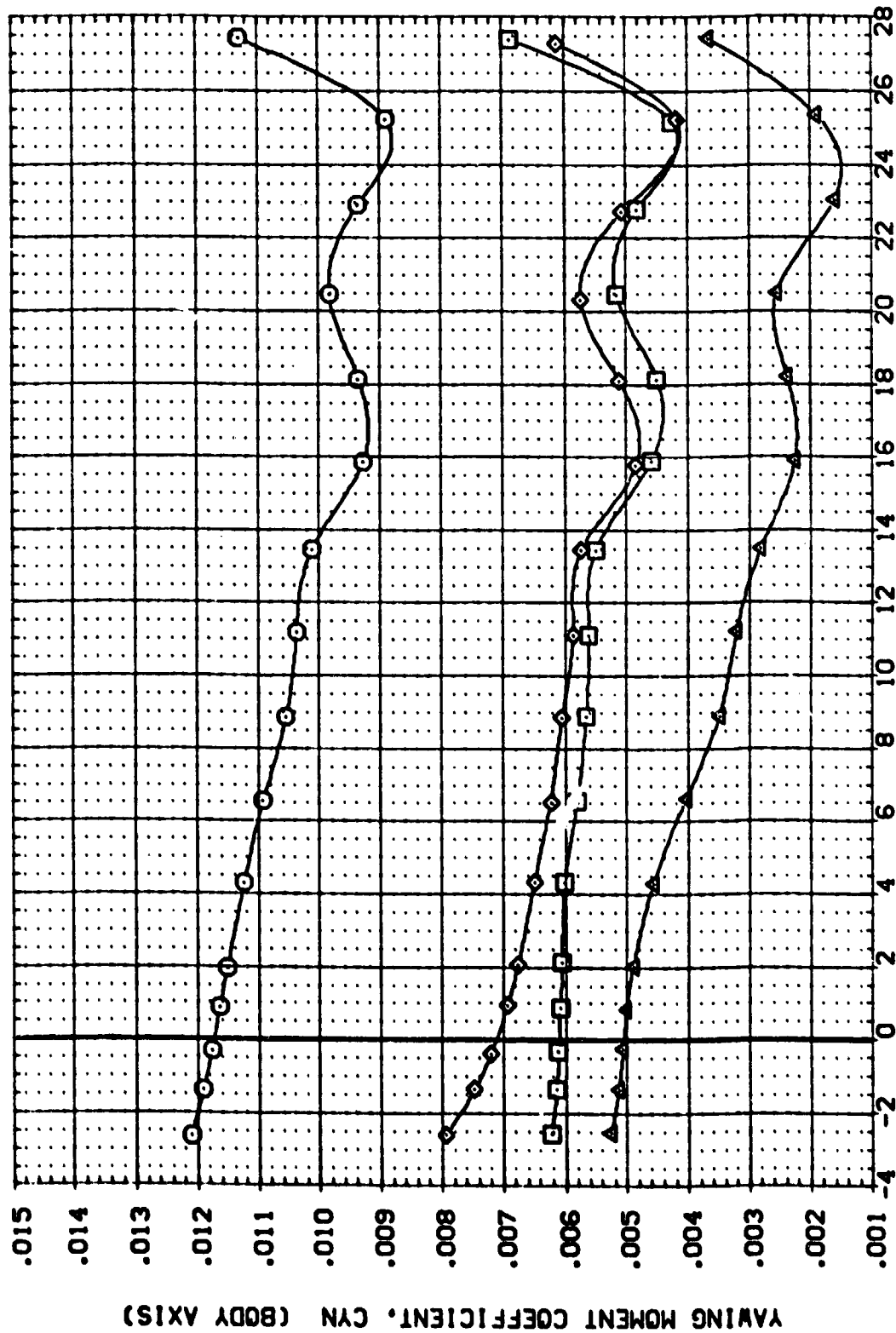


FIGURE 34 089B ORBITER COMBINED SPEED BRAKE AND RUDDER DEFLECTION EFFECTS

(A)PN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BDFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(RPP028)	DA17.LTPT138.ORB2A.(B1OC507F4	.000	-14.250	24.920	-10.000	SREF 87.1560 SQ. IN.
(RPP025)	DA17.LTPT138.ORB2A.(B1OC507F4	.000	-14.250	.000	-10.000	LREF 19.9245 INCHES
(RPP024)	DA17.LTPT138.ORB2A.(B1OC507F4	.000	-14.250	54.920	-10.000	BREF 14.0502 INCHES
(RPP042)	DA17.LTPT138.ORB2A.(B1OC507F4	.000	-14.250	84.920	-10.000	XMRP 13.1469 INCHES
						ZMRP .0000 INCHES
						SCALE .0150

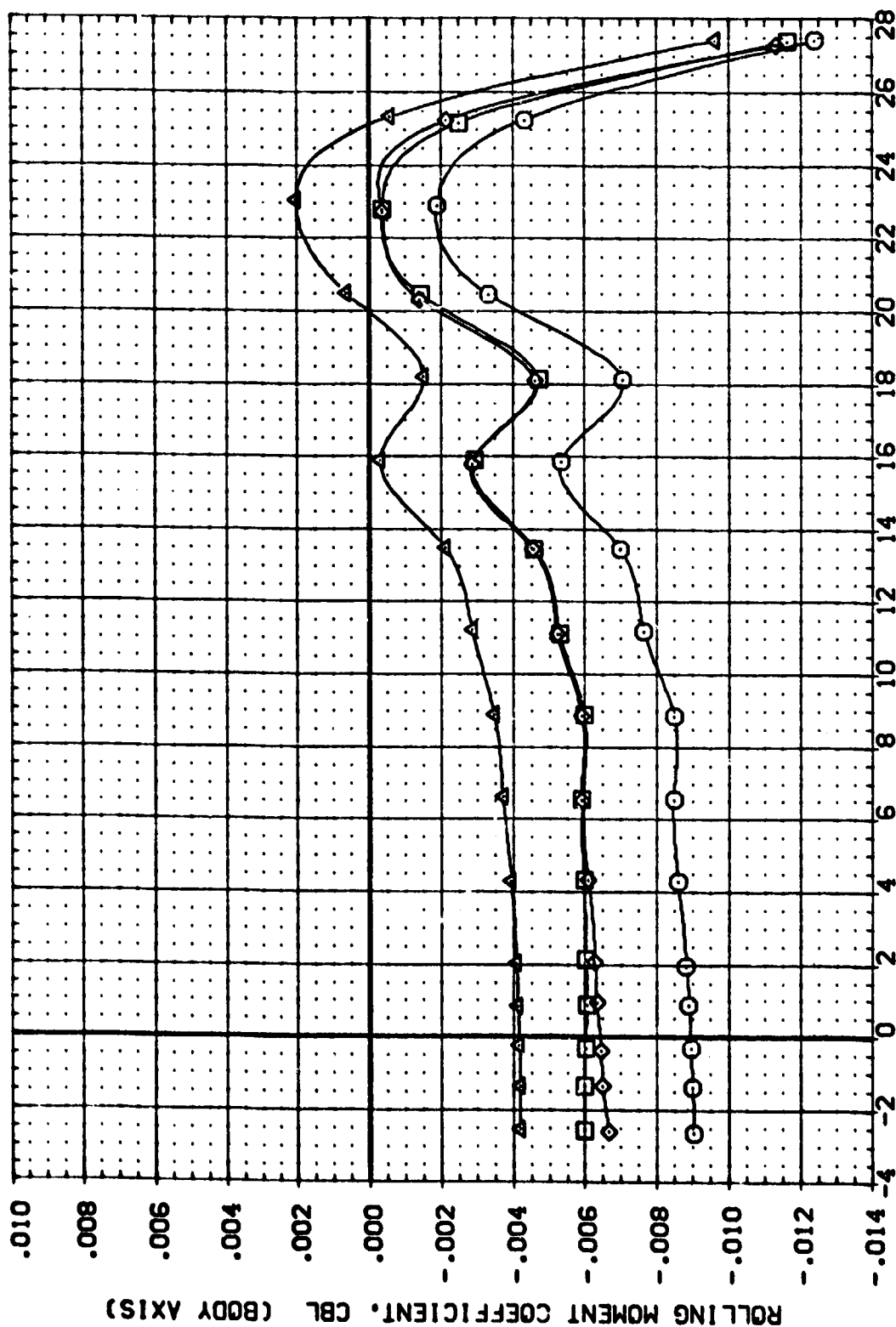


FIGURE 34 089B ORBITER COMBINED SPEED BRAKE AND RUDDER DEFLECTION EFFECTS

(A)RN/L = 10.00

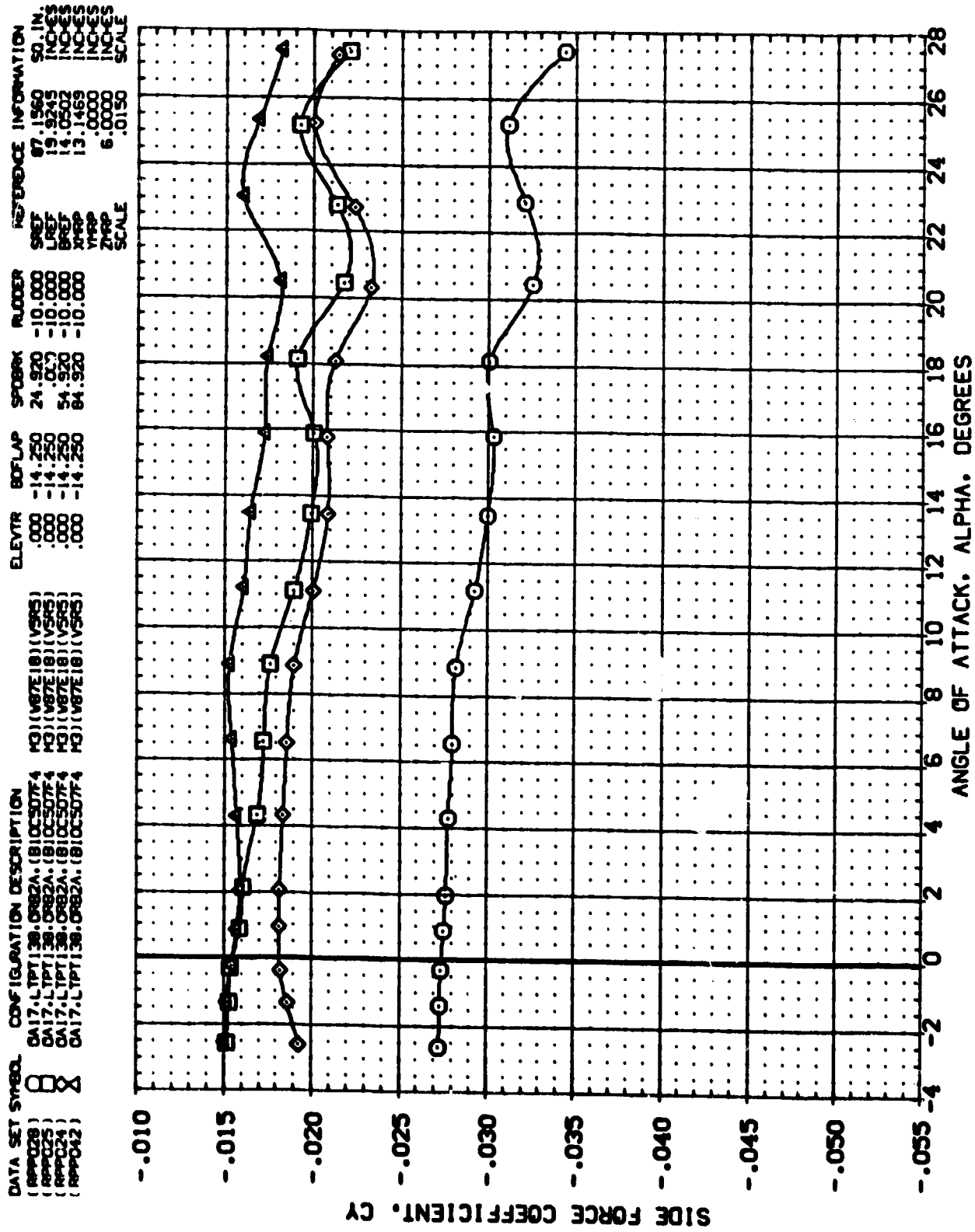


FIGURE 34 0898 ORBITER COMBINED SPEED BRAKE AND RUDDER DEFLECTION EFFECTS

(A)RN/L = 10.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION
(BPP027)	□	CA17.LTPT1.38.0R82A.(810C507F4	0.00	-14.250	24.920	.000	SREF 87.1560 SO.IN.
(BPP032)	□	CA17.LTPT1.38.0R82A.(810C507F4	-5.080	-14.250	24.920	.000	LREF 19.9245 INC-ES
(BPP036)	□	CA17.LTPT1.38.0R82A.(810C507F4	-9.400	-14.250	24.920	.000	BREF 14.0502 INC-ES
(BPP035)	□	CA17.LTPT1.38.0R82A.(810C507F4	-19.200	-14.250	24.920	.000	XMRP 13.1469 INC-ES
(BPP038)	□	CA17.LTPT1.38.0R82A.(810C507F4	-24.500	-14.250	24.920	.000	ZMRP 6.0000 INC-ES
							SCALE .0150

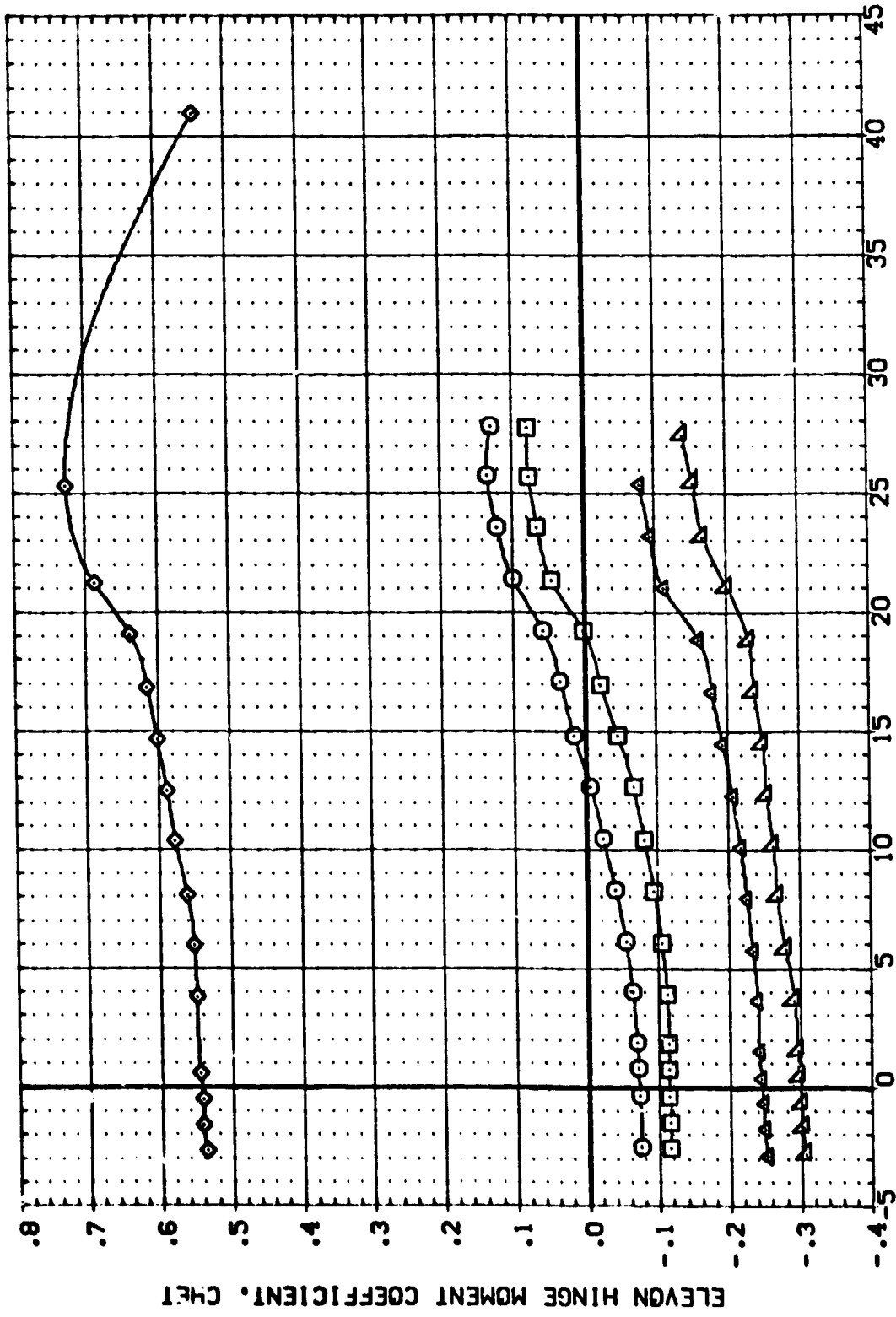


FIGURE 35 089B ORBITER ELEVON HINGE MOMENTS (NEGATIVE DEFLECTIONS)

(A)RN/L = 4.70



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPDRBK	RLODER	REFERENCE INFORMATION
(BPP027)	CA17.LTPT138.0RB2A.(810C507F4	.000	-14.250	24.920	.000	SREF 87.1560 50. IN.
(BPP032)	CA17.LTPT138.0RB2A.(810C507F4	-5.080	-14.250	24.920	.000	LREF 19.9245 INC-ES
(BPP036)	CA17.LTPT138.0RB2A.(810C507F4	-9.400	-14.250	24.920	.000	SREF 14.0502 INC-ES
(BPP035)	CA17.LTPT138.0RB2A.(810C507F4	-19.200	-14.250	24.920	.000	XREF 13.1469 INC-ES
(BPP038)	CA17.LTPT138.0RB2A.(810C507F4	-24.500	-14.250	24.920	.000	ZREF 6.0000 INC-ES
						SCALE .0150

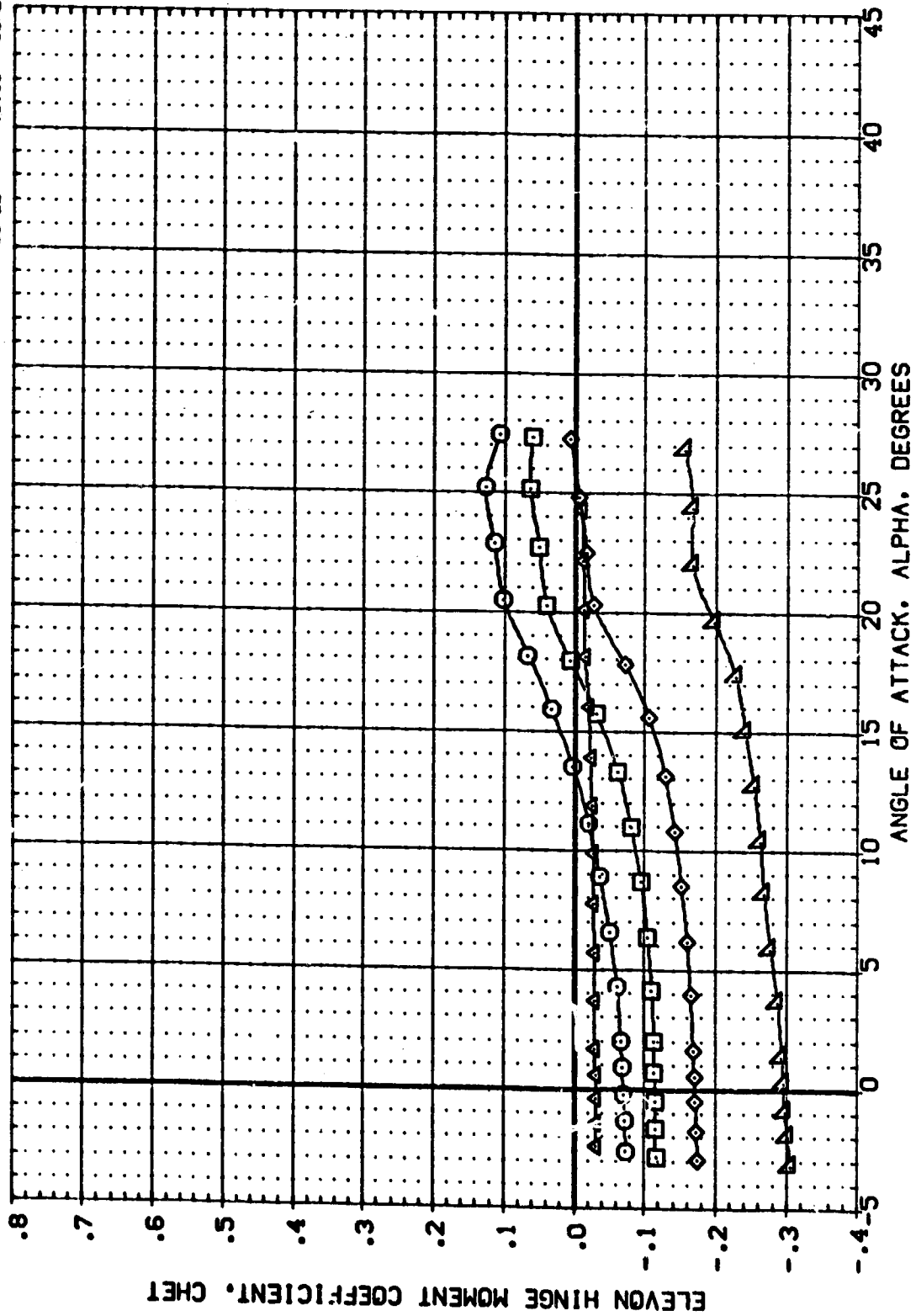


FIGURE 35 089B ORBITER ELEVON HINGE MOMENTS (NEGATIVE DEFLECTIONS)

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPDBRK	RUDDER	REFERENCE INFORMATION
(BPP029)	0A17.LTPT138.082A.(B10C507F4	9.800	-14.250	24.920	.000	SREF 87.1560 SO.IN
(BPP030)	0A17.LTPT138.082A.(B10C507F4	5.150	-14.250	24.920	.000	LREF 19.3245 INCHES
(BPP027)	0A17.LTPT138.082A.(B10C507F4	.000	-14.250	24.920	.000	BREF 14.0502 INCHES
						XREF 13.1469 INCHES
						YREF .0000 INCHES
						ZREF 6.0000 INCHES
						SCALE .0150 INCHES

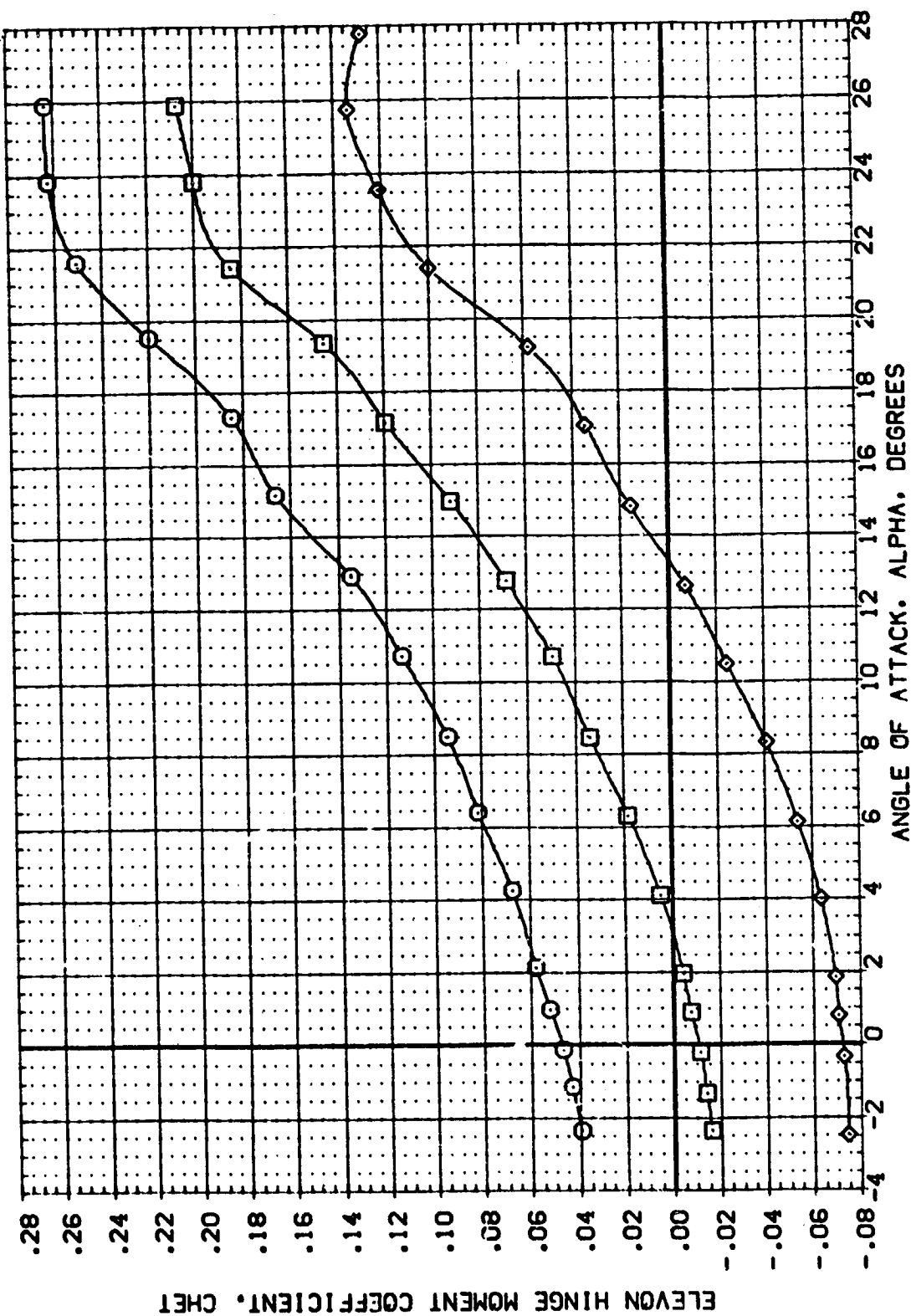


FIGURE 36 089B ORBITER ELEVON HINGE MOMENTS (POSITIVE DEFLECTIONS)

(A)RN/L = 4.70



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RLOOR	REFERENCE INFORMATION
(BPP029)	DA17.LTPT138.0R82A.(B)OC507F4	9.800	-14.250	24.920	.000	SREF 87.1567 SO.IN.
(BPP030)	DA17.LTPT138.0R82A.(B)OC507F4	5.150	-14.250	24.920	.000	LREF 19.9245 INCHES
(BPP027)	DA17.LTPT138.0R82A.(B)OC507F4	.000	-14.250	24.920	.000	BREF 14.0502 INCHES
						XREF 13.1469 INCHES
						YREF .0000 INCHES
						ZREF 6.0000 INCHES
						SCALE .0150

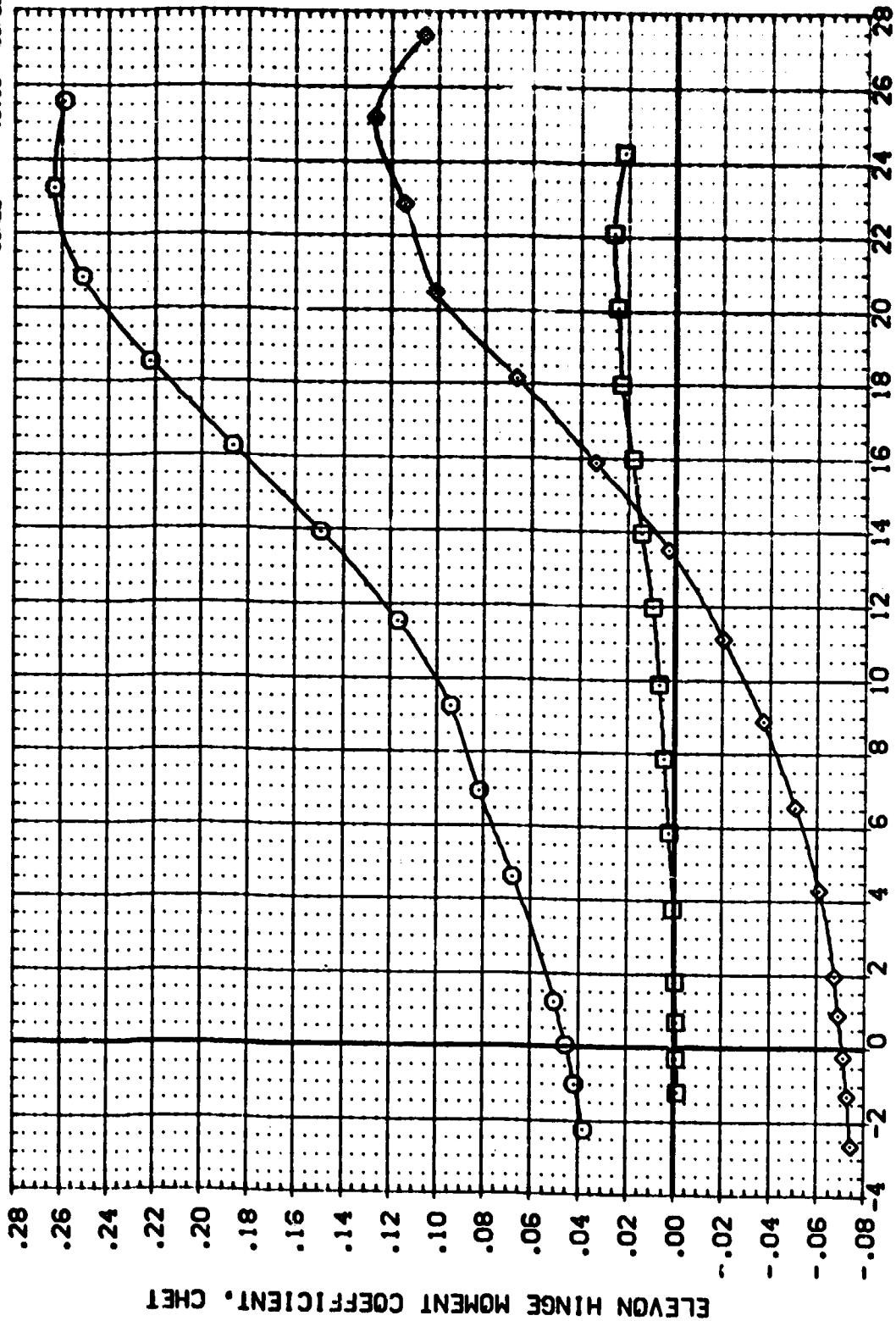


FIGURE 36 089B ORBITER ELEVON HINGE MOMENTS (POSITIVE DEFLECTIONS)

(AJRN/L = 10.00

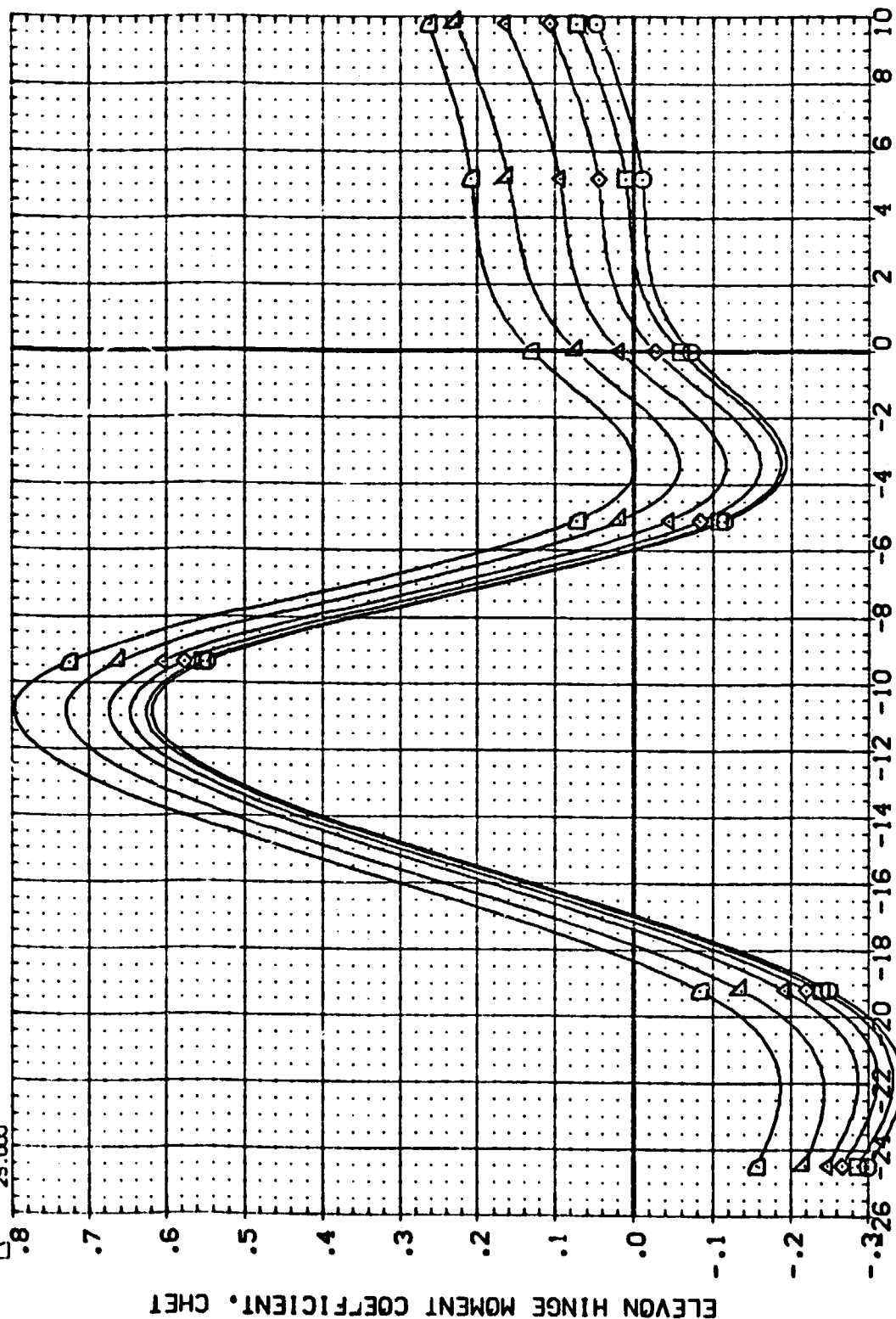
[illegible]

FIGURE 37 089B ORBITER ELEVON HINGE MOMENTS VARIATION WITH ELEVON



0A17.LTPT138.0R82A.(B10C5D7F4 M3)(W87E18)(V5R5)(MPP138)

SYMBOL	ALPHA	RN/L	PARAMETRIC VALUES	DATA SOURCE	ELEVON	REF	REFERENCE INFORMATION
□	.000		10.000	.000	MPP138	87.1560	INCHES
□	5.000		.250	.000	MPP138	19.5245	INCHES
□	10.000		.000	.000	MPP138	14.0502	INCHES
□	15.000		.000	.000	MPP138	13.1469	INCHES
□	20.000		.000	.000	MPP138	6.0000	INCHES
□	25.000		.000	.000	MPP138	6.0150	SCALE

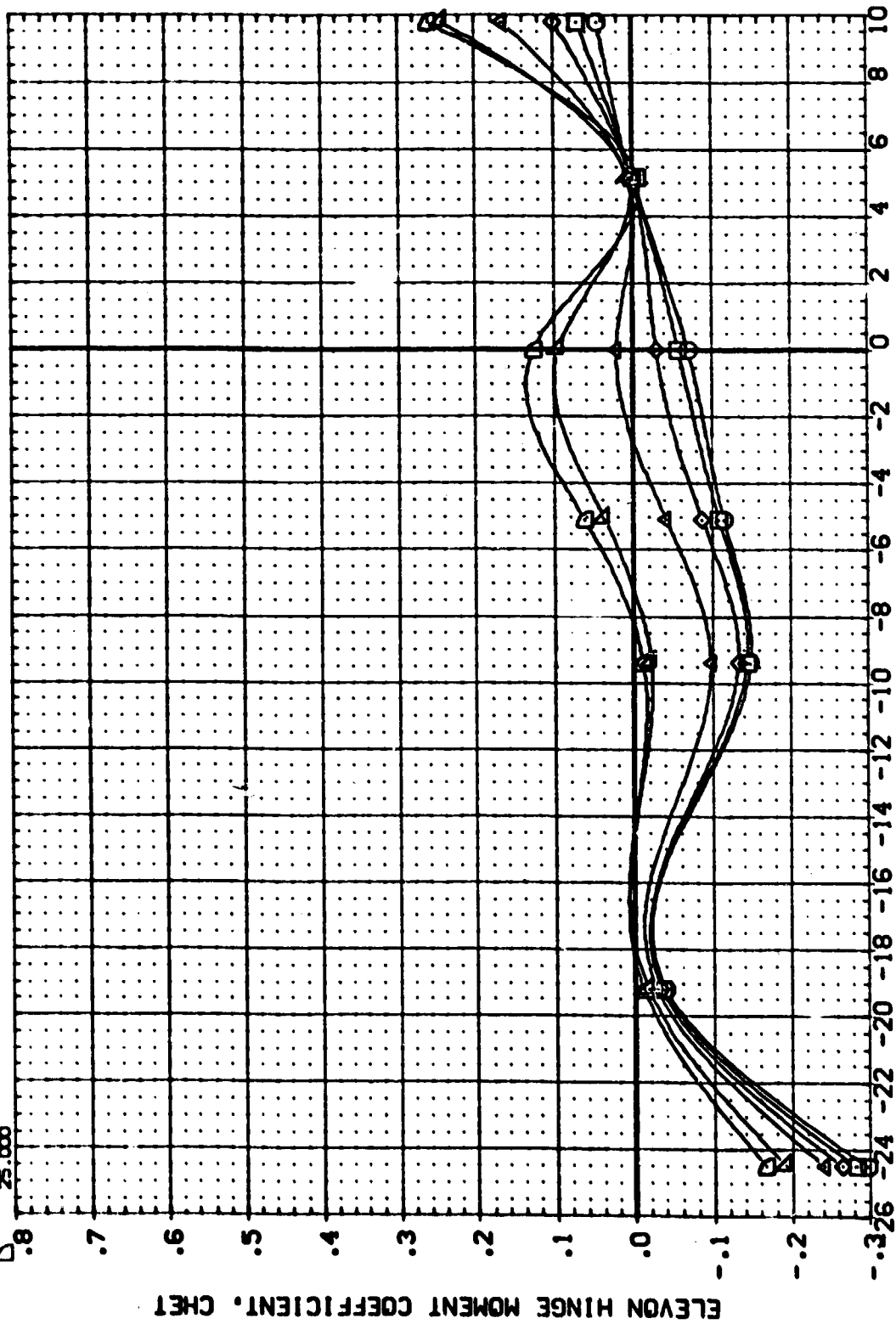
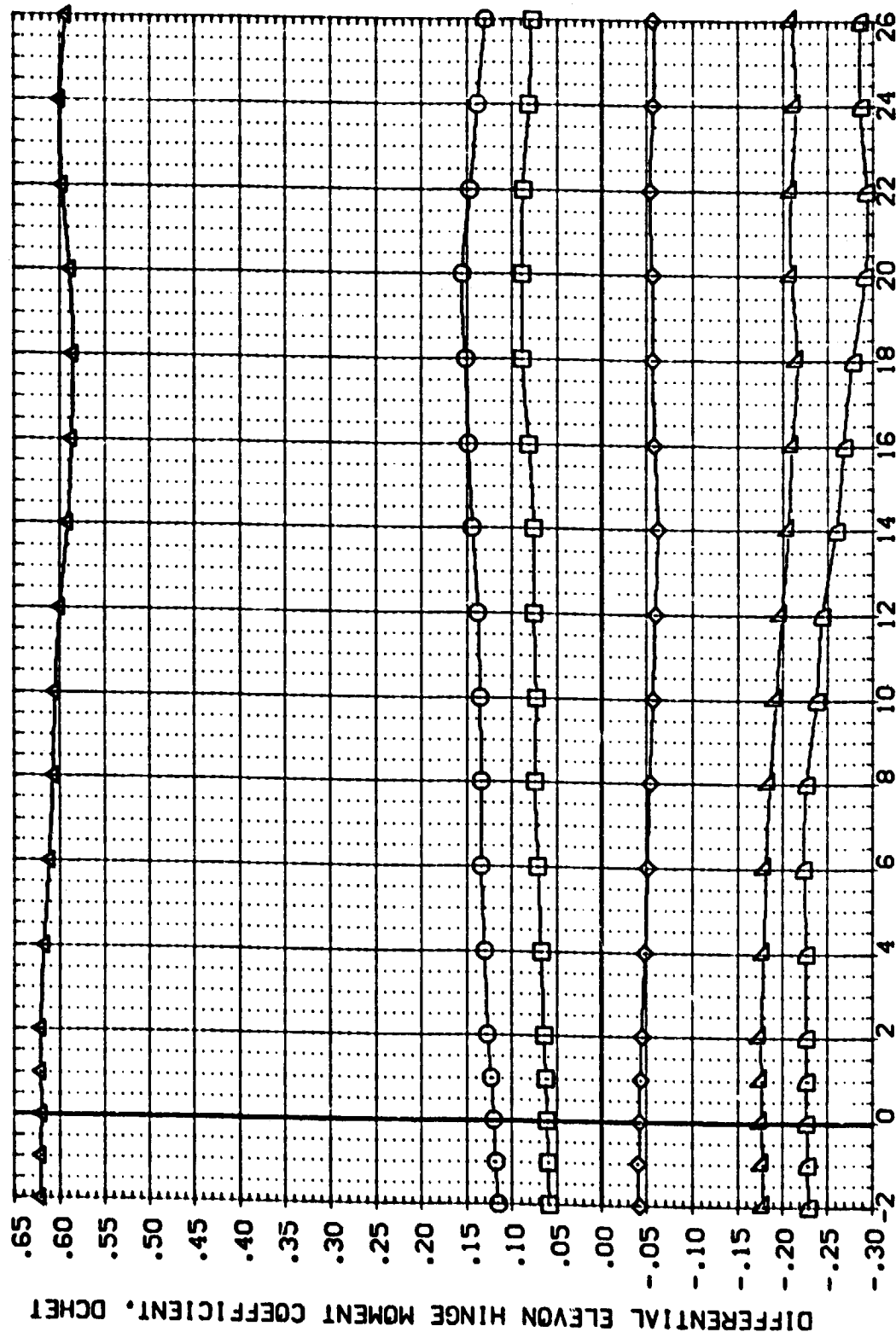


FIGURE 37 089B ORBITER ELEVON HINGE MOMENTS VARIATION WITH ELEVON

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DEL VON	AIR ON	BDF LAP	SPDRX	REFERENCE INFORMATION
(P029)	DA17.LTPT 38.DR82A.(B1DC507F4	9.800	.000	-14.250	24.920	SREF 87.1560 SO IN.
(P030)	DA17.LTPT 38.DR82A.(B1DC507F4	9.150	.000	-14.250	24.920	LREF 19.9245 INCHES
(P031)	DA17.LTPT 38.DR82A.(B1DC507F4	-9.080	.000	-14.250	24.920	BREF 14.0502 INCHES
(P032)	DA17.LTPT 38.DR82A.(B1DC507F4	-9.400	.000	-14.250	24.920	XREF 13.1469 INCHES
(P033)	DA17.LTPT 38.DR82A.(B1DC507F4	-19.200	.000	-14.250	24.920	YREF 6.0000 INCHES
(P034)	DA17.LTPT 38.DR82A.(B1DC507F4	-24.500	.000	-14.250	24.920	ZREF 6.0150 INCHES
						SCALE



ANGLE OF ATTACK, ALPHA, DEGREES

FIGURE 38 0898 ORBITER ELEVON HINGE MOMENT INCREMENTS

(AJRN/L = 4.70

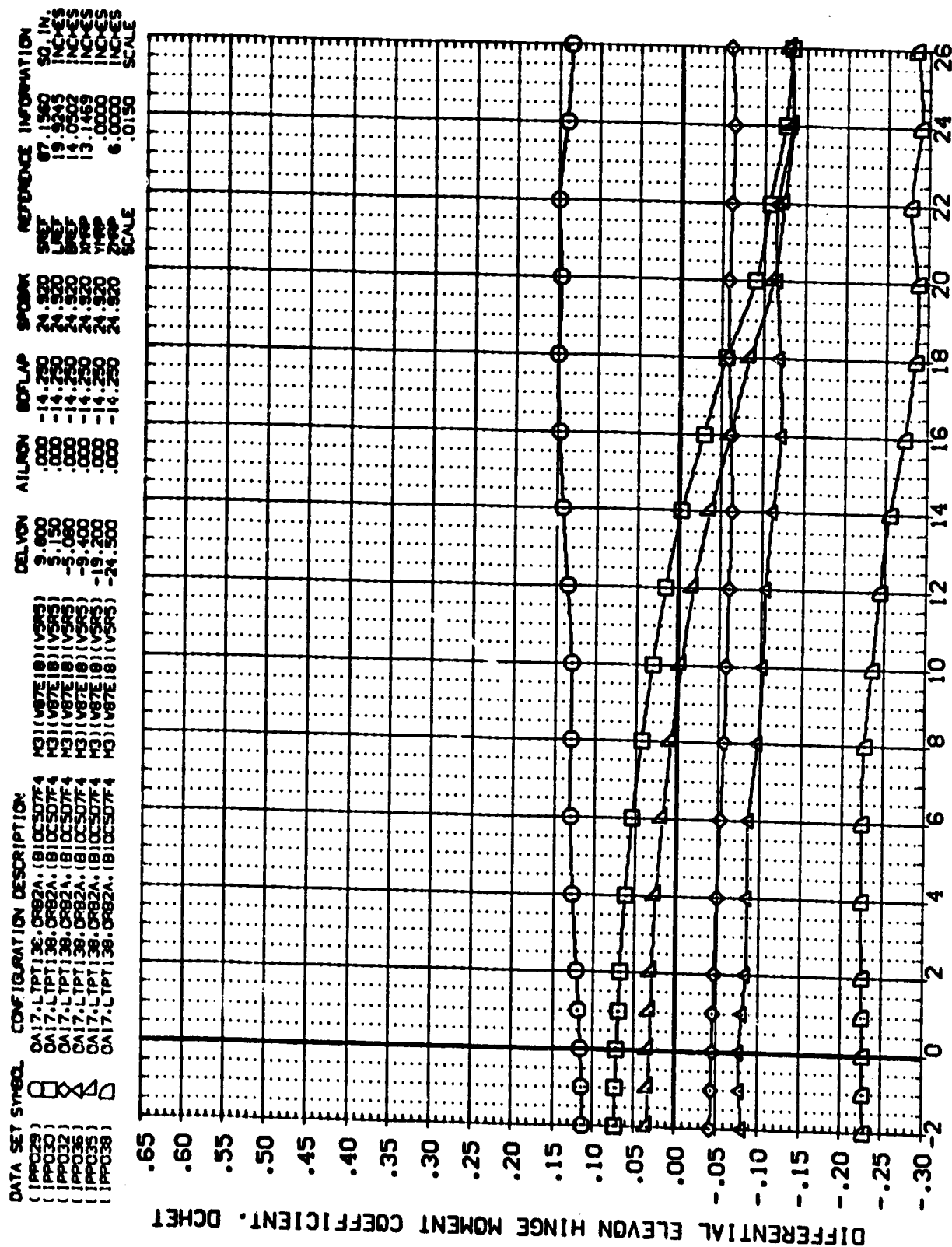


FIGURE 38 089B ORBITER ELEVON HINGE MOMENT INCREMENTS

(A)RN/L = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	SPOBRK	BETA	AILRON	REFERENCE INFORMATION
(RPP027)	CA17.LTPT138.082A.(B10C507F4	.000	24.920	.000	.000	SREF 87.1560 50. IN.
(RPP028)	CA17.LTPT138.082A.(B10C507F4	-10.000	24.920	.000	.000	LREF 19.9245 INCHES
(RPP040)	CA17.LTPT138.082A.(B10C507F4	-20.000	24.920	.000	.000	BREF 14.0502 INCHES
						YMRP 13.1469 INCHES
						ZMRP 6.0000 INCHES
						SCALE .0150 INCHES

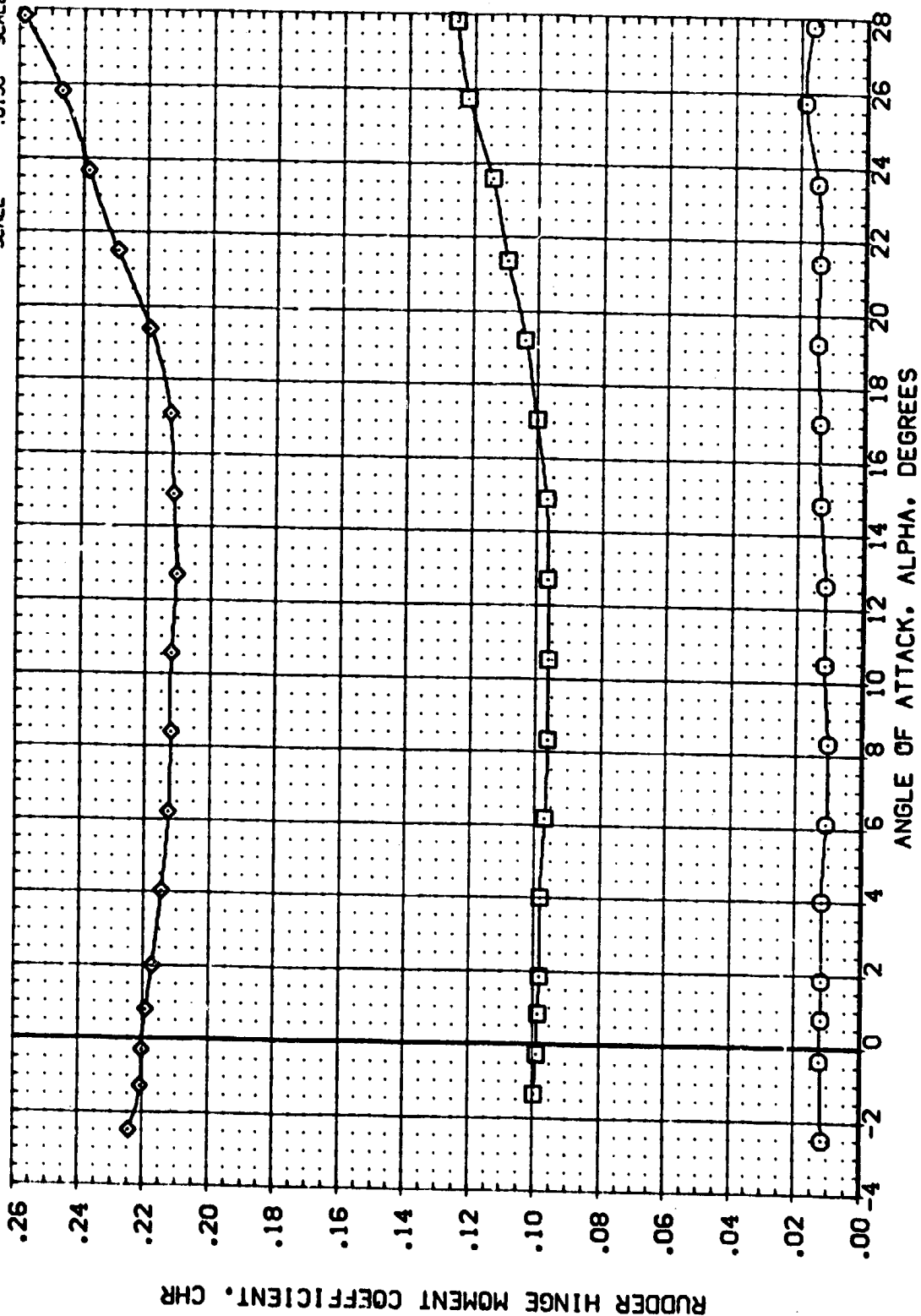


FIGURE 39 089B ORBITER RUDDER HINGE MOMENT WITH DEFLECTION

(AJRN/L = 4.70



DATA SET SYMBL. CONFIGURATION DESCRIPTION
(RPP027) DA17.LTPT138.DR82A.(B10C507F4)
(RPP028) DA17.LTPT138.DR82A.(B10C507F4)
(RPP043) DA17.LTPT138.DR82A.(B10C507F4)

KG1(V87E18)(V8RS)
KG1(V87E18)(V8RS)
KG1(V87E18)(V8RS)

RUDDER SPORNK BETA AILRON REFERENCE INFORMATION
.000 24.920 .000 .000 87.1580 90.IN.
-10.000 24.920 .000 .000 19.5245 INCHES
-20.000 24.920 .000 .000 14.0502 INCHES
13.1469 INCHES
YARP .0000 INCHES
ZARP .0000 INCHES
SCALE .0150

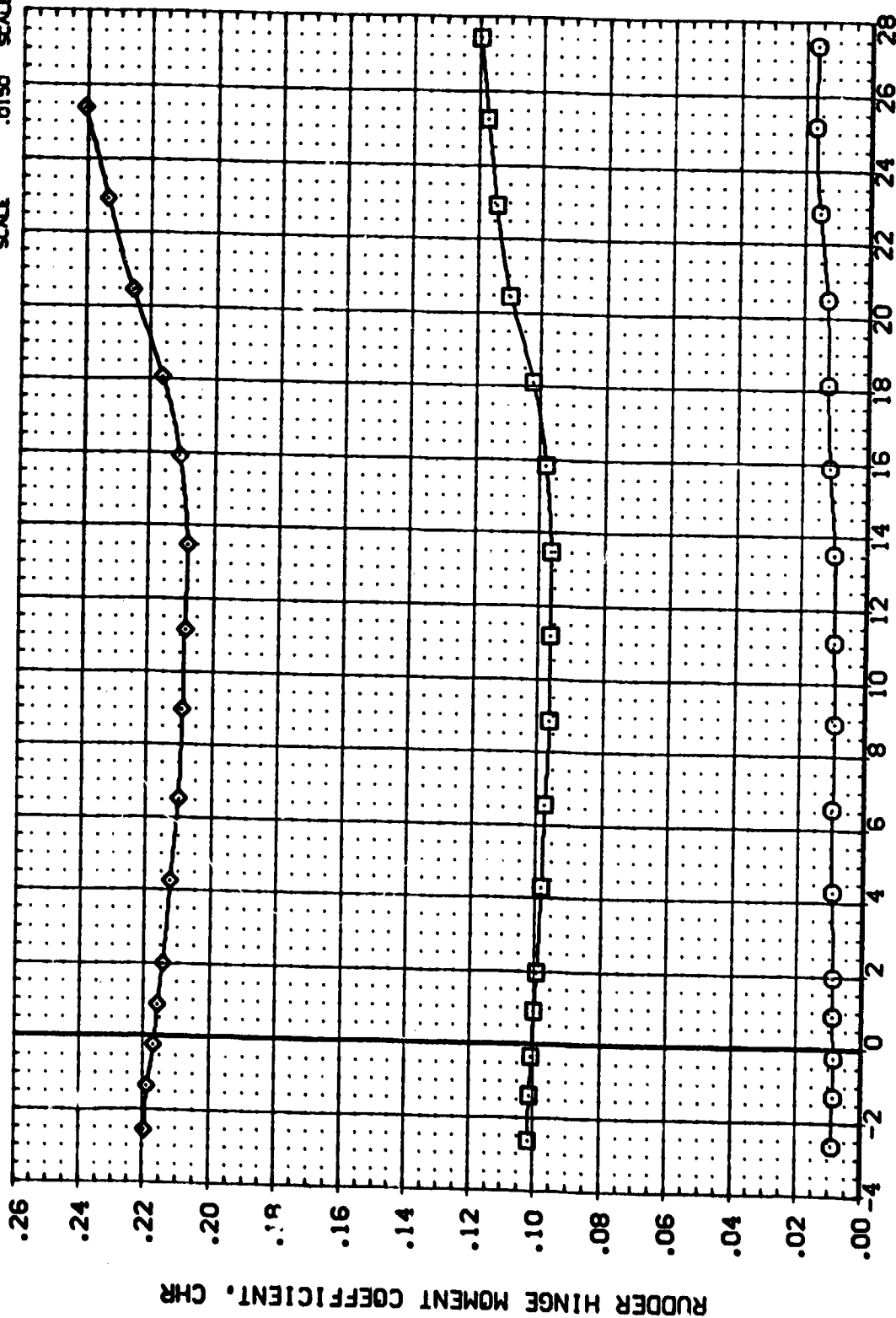


FIGURE 39 0898 ORBITER RUDDER HINGE MOMENT WITH DEFLECTION

(AJRN/L = 10.00

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	RUDDER	REFERENCE INFORMATION
□	.000	RN/L 4.700	.000 DATASET	DATASET	SREF 87.1560
□	5.000	MACH .250	.000 MPO27	MPO28	UREF 19.9245
◇	10.000	AILRON .000	-14.250 MPO40		BREF 11.0502
△	15.000	SPDBRK 24.920			XPRP 13.1469
△	20.000				YPRP .0000
					ZPRP 6.0000
					SCALE .0150

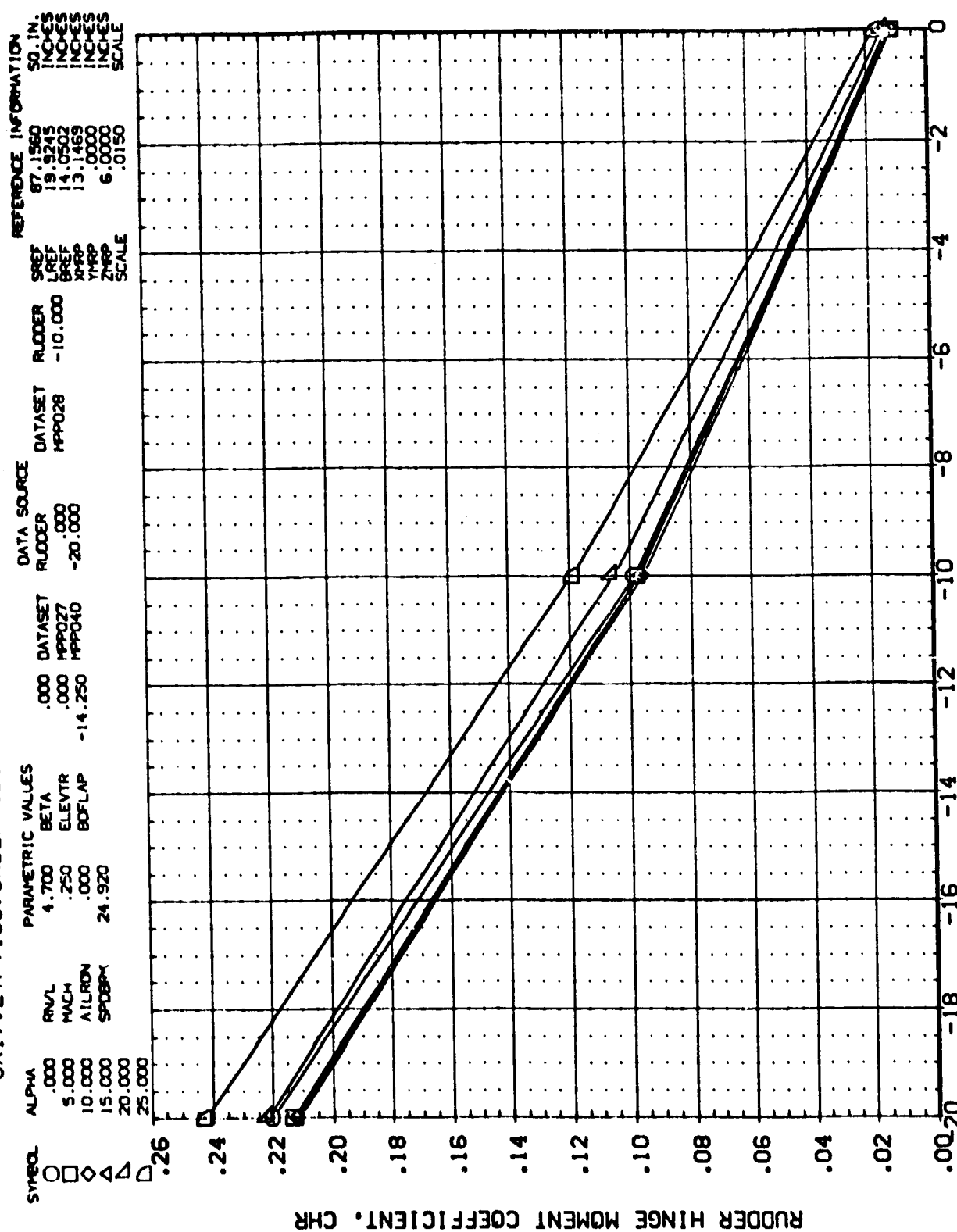


FIGURE 39 089B ORBITER RUDDER HINGE MOMENT WITH DEFLECTION



0A17.LTPT138.0RB2A.(B10C5D7F4 M3)(W87E18)(V5R5)(MPP027)

SYMBOL		PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION	
ALPHA	.000	RM/L	10.000	BETA	.000	DATASET	RUDDER	SREF	50. IN.
	5.000	MACH	.250	ELEVTR	.000	MPP027	-10.000	UREF	19.8245
	10.000	AILRON	.000	EDFLAP	-20.000	MPP040		UREF	14.0502
	15.000	SPDRK	24.920					XPRP	13.1469
	20.000							YPRP	.0000
	25.000							ZPRP	.0000
								SCALE	.0150

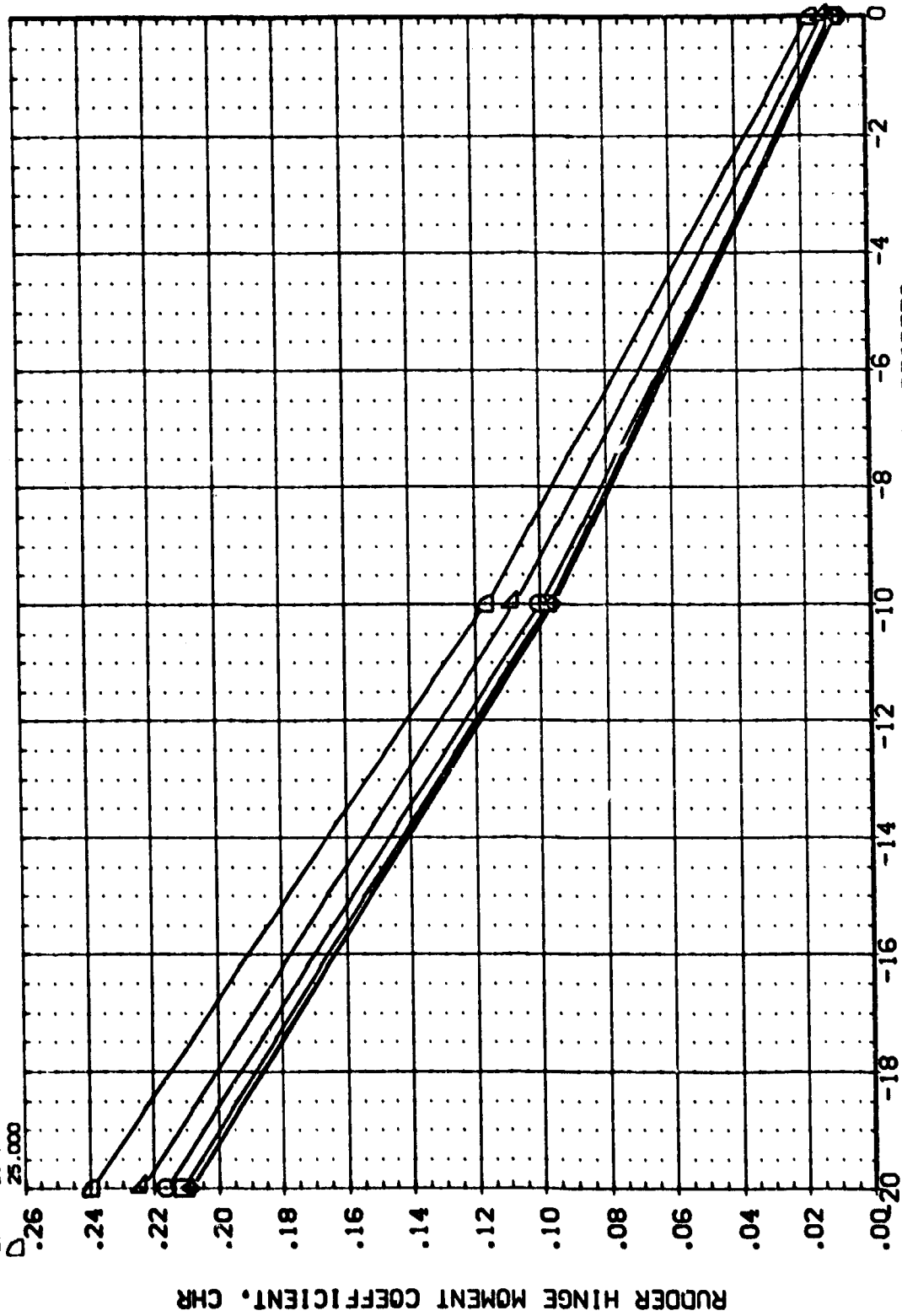


FIGURE 39 089B ORBITER RUDDER HINGE MOMENT WITH DEFLECTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	BOFLAP	SPOBRK	RUDDER	REFERENCE INFORMATION	SO IN
(RPP028)	BA17.LTPT138.0RB2A.(B10C507F4	.000	-14.250	24.920	-10.000	SREF	87.1550
(RPP025)	CA17.LTPT138.0RB2A.(B10C507F4	.000	-14.250	.000	-10.000	LREF	19.9245
(RPP024)	CA17.LTPT138.0RB2A.(B10C507F4	.000	-14.250	54.920	-10.000	BREF	14.0502
(RPP042)	CA17.LTPT138.0RB2A.(B10C507F4	.000	-14.250	84.920	-10.000	XPRP	13.1469
						YPRP	.0000
						ZPRP	.0000
						SCALE	.0150
						SCALE	INCHES

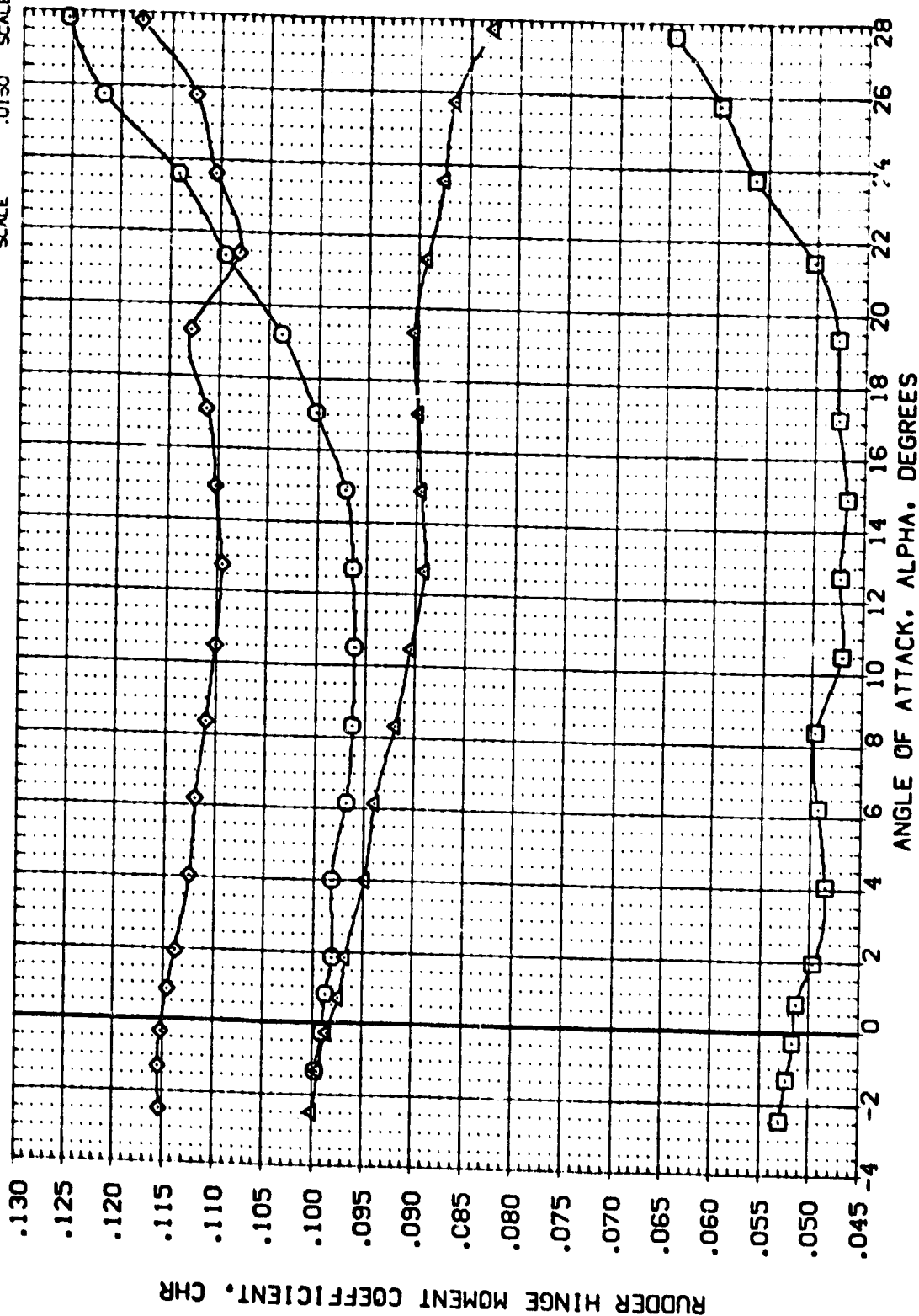
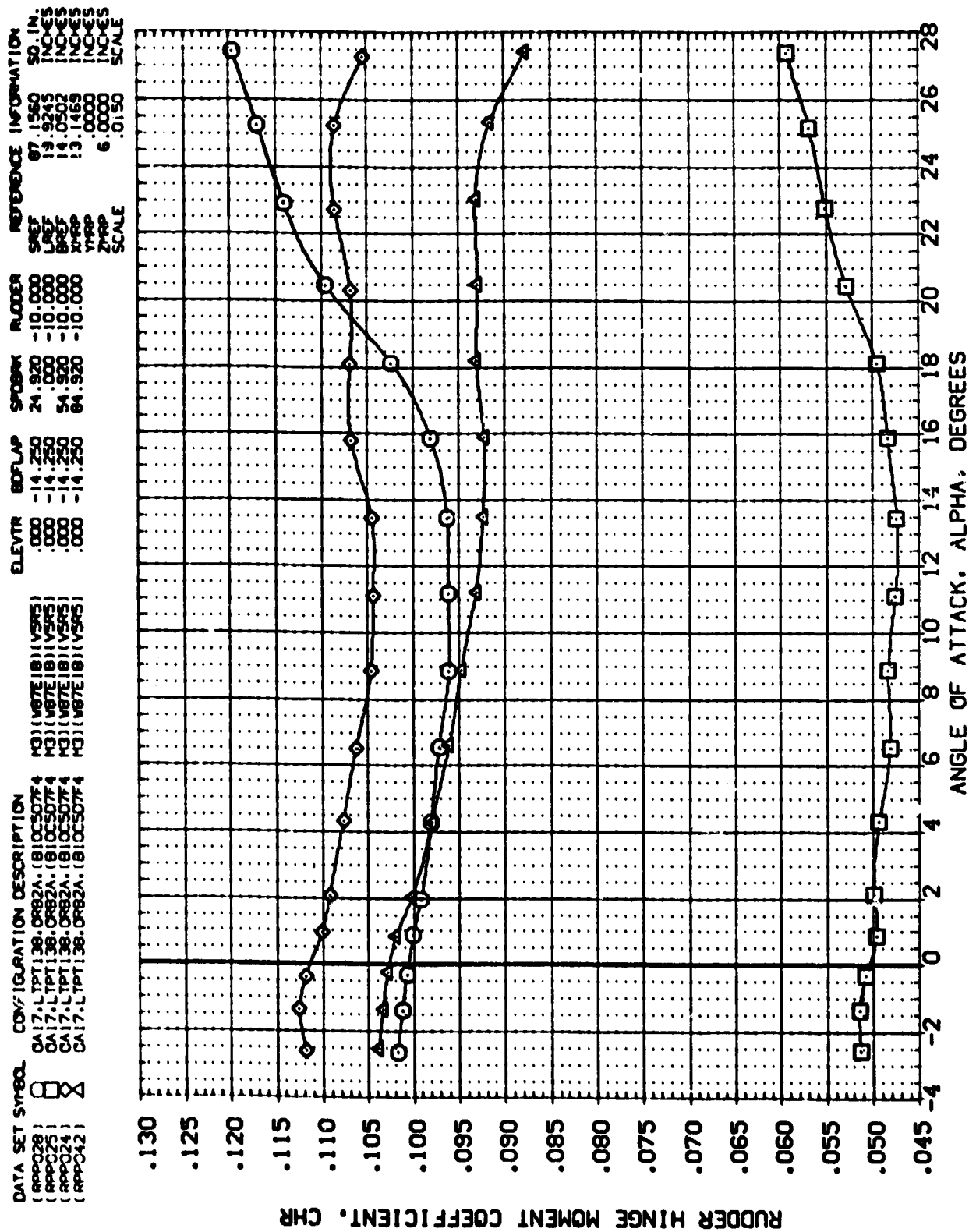


FIGURE 40 0898 ORBITER RUDDER HINGE MOMENT VARIATION WITH SPEED BRAKE DEFLECT.

(A) RN/L = 4.70


$$(A)RN/L = 10.00$$

DATA SET SYMBOL CONFIGURATION DESCRIPTION REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	SPDRBK	BETA	AILRON	SCALE
LPPC28	DA17.LTPT138.DRB2A.(B10C507F4	24.920	.000	.000	87.1560
LPPC42	DA17.LTPT138.DRB2A.(B10C507F4	24.920	.000	.000	19.9245
LPPC25	DA17.LTPT138.DRB2A.(B10C507F4	.000	.000	.000	14.0502
LPPC24	DA17.LTPT138.DRB2A.(B10C507F4	54.920	.000	.000	13.1469
LPPC42	DA17.LTPT138.DRB2A.(B10C507F4	84.920	.000	.000	.0000
					6.0000
					.0150

RUDDER HINGE MOMENT COEFFICIENT DERIVATIVE WITH RUDDER DEFL., DCHDR

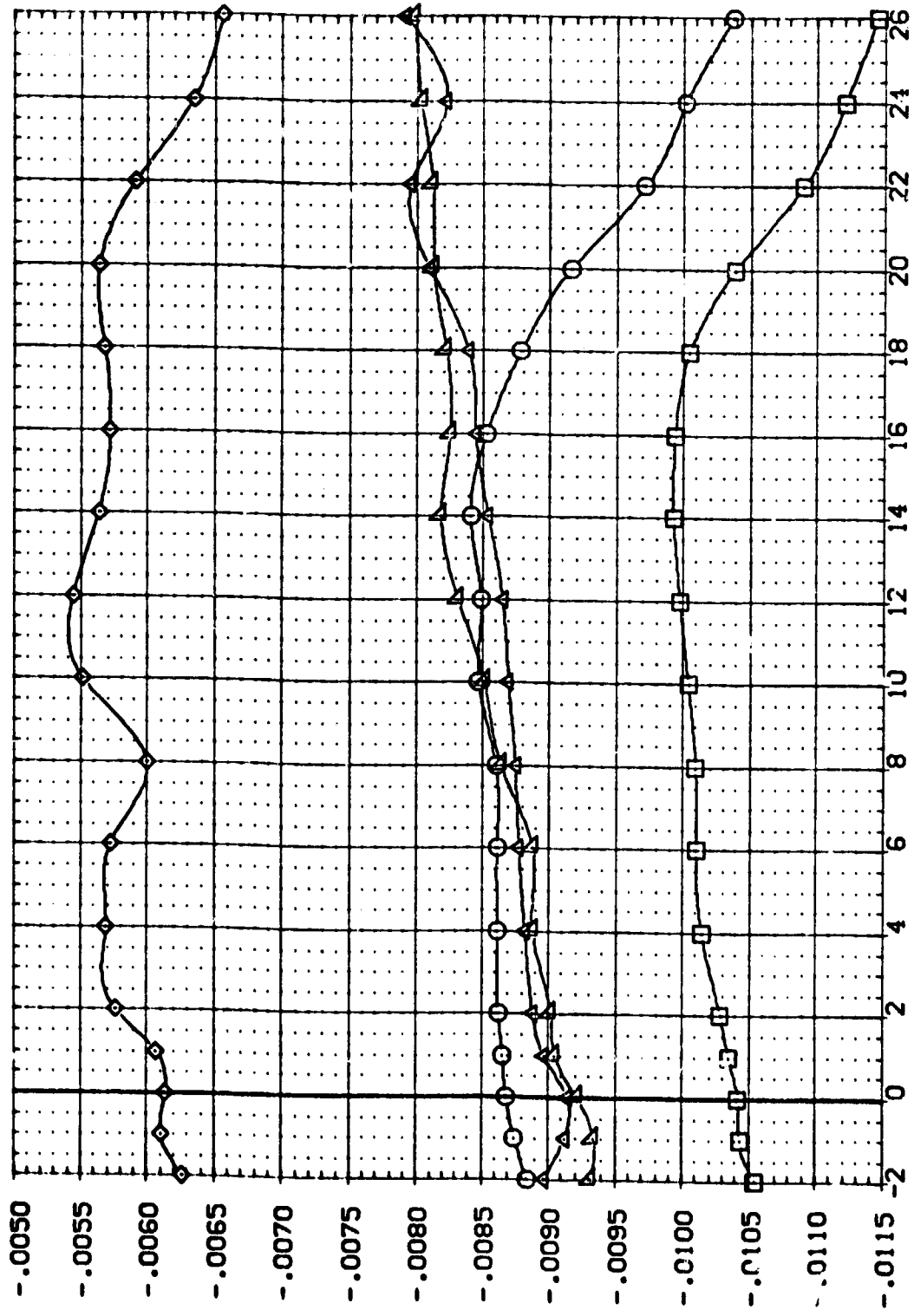
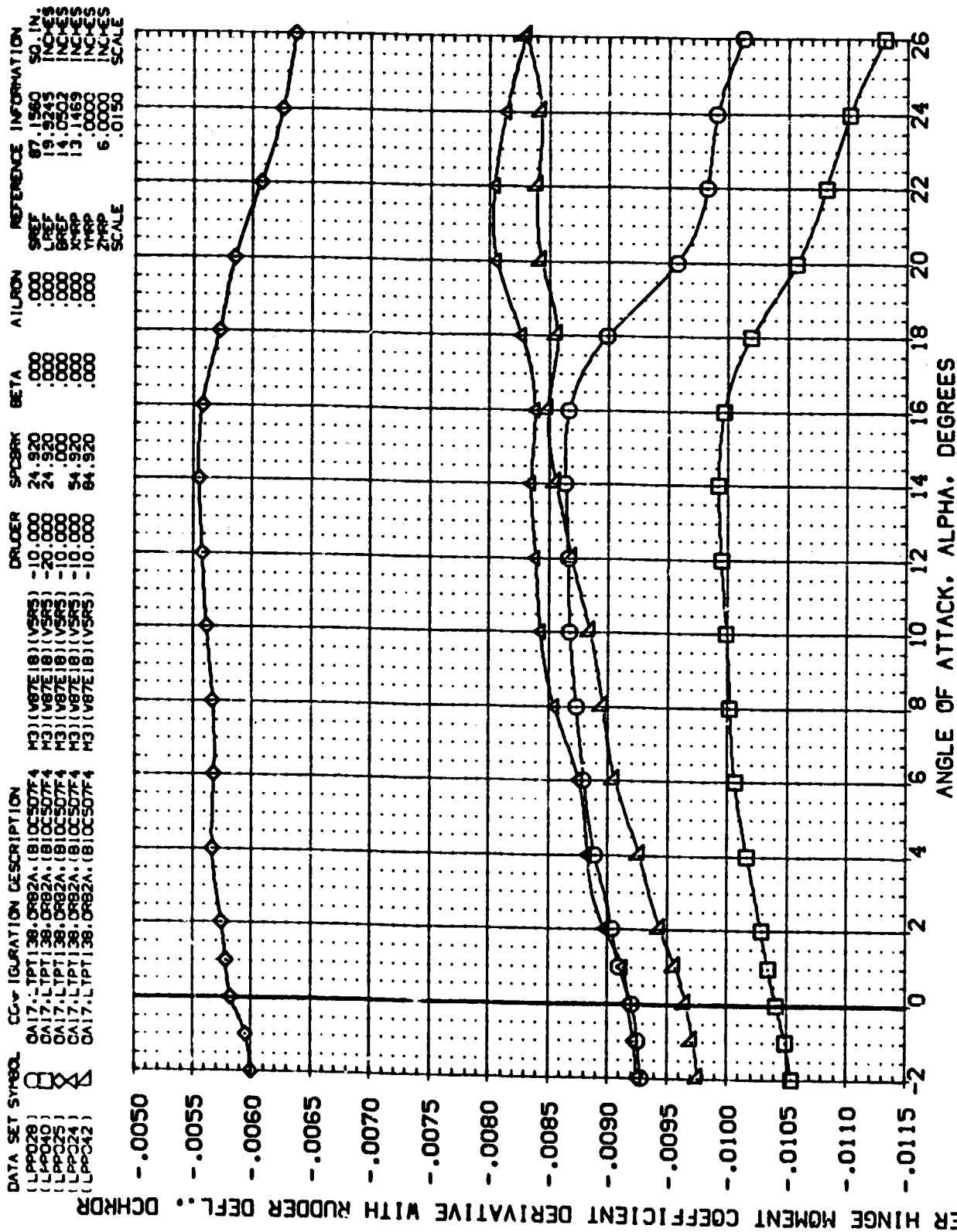


FIGURE 41 0898 ORBITER RUDDER HINGE MOMENT DEFLECTION DERIVATIVE

(A)RN/L = 4.70


$$(\Delta)_{RN/L} = 10.00$$

DATA SET SYMBOL: (RPP027) (RPP045) ☐ ☐

CONFIGURATION DESCRIPTION: 0A17.LTPT138.082A.(8)C507F4 M3)(V87E18)(V5R5) CA17.LTPT138.082A.(8)C507F4 M3)(V87E18)(V5R5)

BETA: .000 -5.000

RUDDER: .000 .000

SPDRK: 24.920 24.920

AIRLON: .000 .000

REFERENCE INFORMATION: SREF 87.1550 SQ. IN. LREF 19.9245 INCHES BREF 14.0502 INCHES XMRP 13.1469 INCHES YMRP .0000 INCHES ZMRP 6.0000 INCHES SCALE .0150

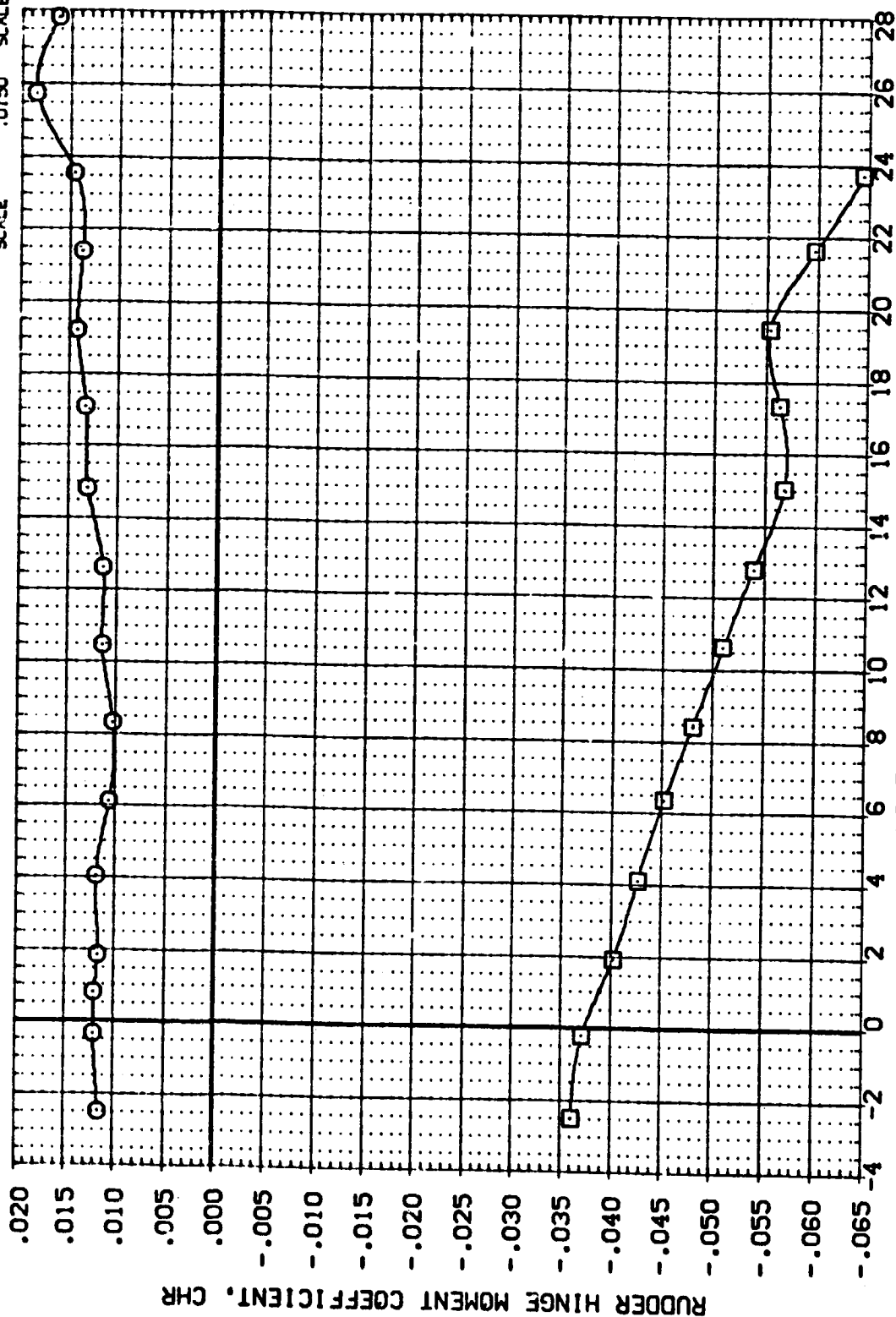


FIGURE 42 089B ORBITER RUDDER HINGE MOMENT WITH SIDESLIP

(A)RN/L = 4.70

DATA SET SYMBOL: 017.LTPT138.0892A.(8100507F4)
 (RPPCZ7) 017.LTPT138.0892A.(8100507F4)
 (RPPC45) 017.LTPT138.0892A.(8100507F4)

CONFIGURATION DESCRIPTION: 0311187E1811(VSR5)
 0311187E1811(VSR5)

BETA: .000
 -5.000

RUDDER: .000
 .000

SPOON: 24.920
 24.920

AIRLON: .000
 .000

REFERENCE INFORMATION:
 SREF: 87.1560 50 IN
 LREF: 19.5275 INCHES
 BREF: 14.0502 INCHES
 XREF: 13.1469 INCHES
 YREF: .0000 INCHES
 ZREF: 6.0000 INCHES
 SCALE: .0150

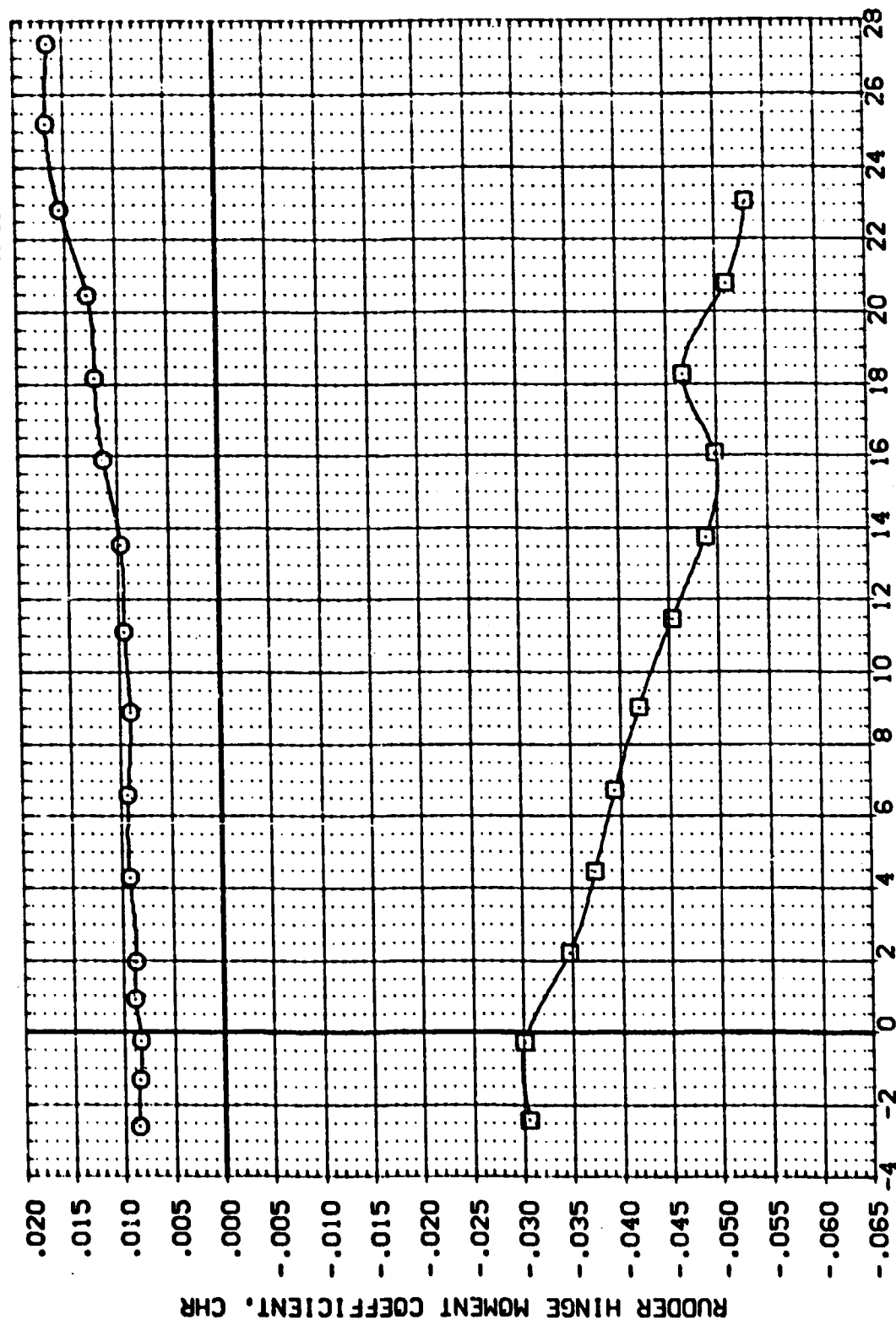


FIGURE 42 0898 ORBITER RUDDER HINGE MOMENT WITH SIDESLIP

(A)RN/L = 10.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 LPP0271 ○ CA17.LTPT138.DR82A.(B1DC507F4 MD)(V67E19)(V995)

REFERENCE INFORMATION
 SREF 87.1560 50. IN.
 LREF 19.9245 INCHES
 BREF 14.0502 INCHES
 XMRP 13.1469 INCHES
 YMRP .0000 INCHES
 ZMRP 6.0000 INCHES
 SCALE .0150 SCALE

DETAILED INFORMATION
 AILRON .000
 SPOBRK 24.920
 RIDDER .000
 DBETA -5.000

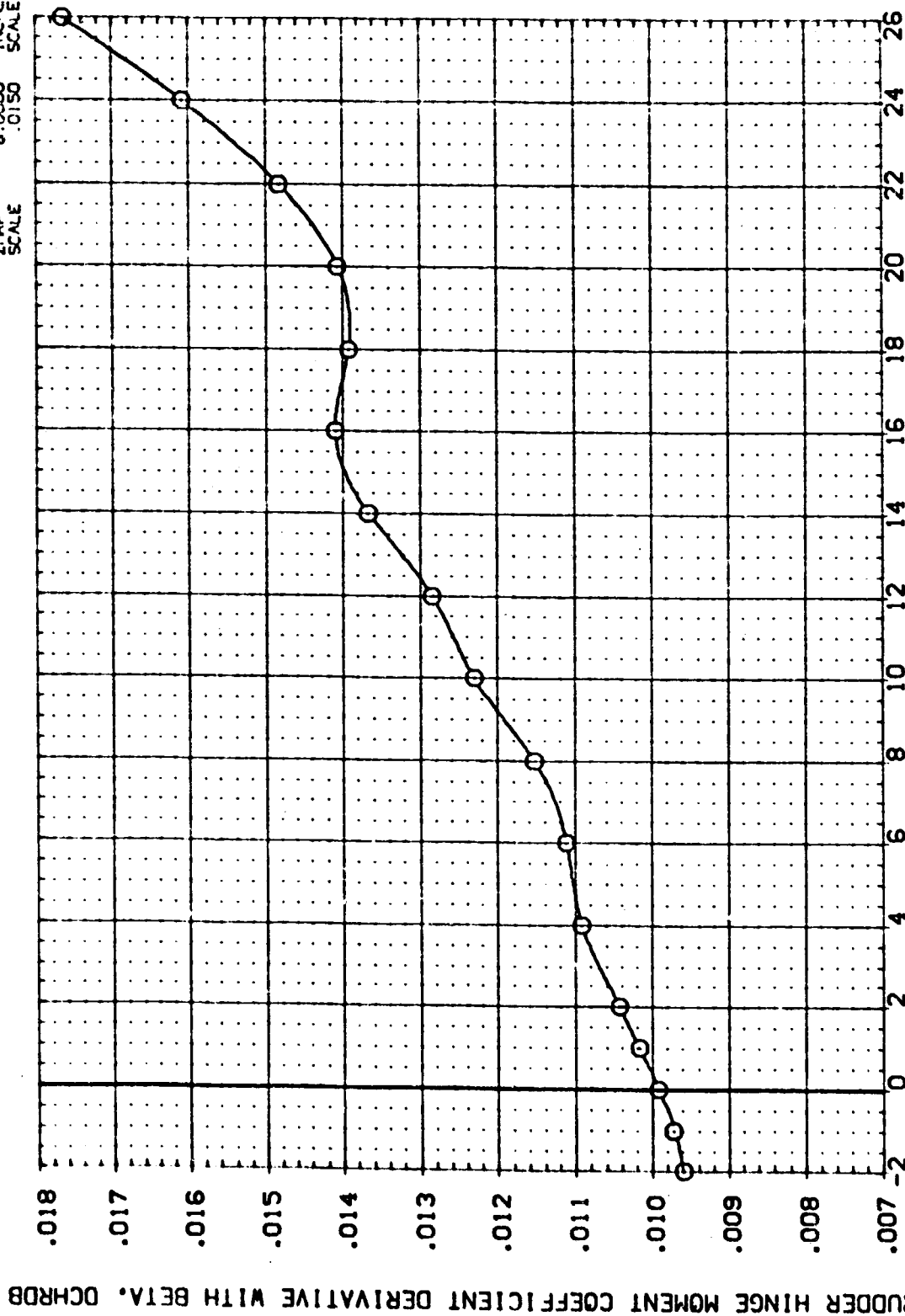


FIGURE 43 089B ORBITER RUDDER HINGE MOMENT SIDESLIP DERIVATIVE

(A)RN/L = 4.70

DATA SET SYMBOL: 0A17.LTPT138.0882A.(B10C507F4 H311V87E181)(V5R5) DBETA: -5.000 AILRON: .000 SPOBPK: 24.920 RUDDER: .000

CONFIGURATION DESCRIPTION: 0A17.LTPT138.0882A.(B10C507F4 H311V87E181)(V5R5)

REFERENCE INFORMATION: SREF: 87.135C SO IN: 19.9245 INCHES LREF: 14.0502 INCHES BREF: 13.1469 INCHES YMRP: .0000 INCHES ZMRP: 6.0000 INCHES SCALE: .0150

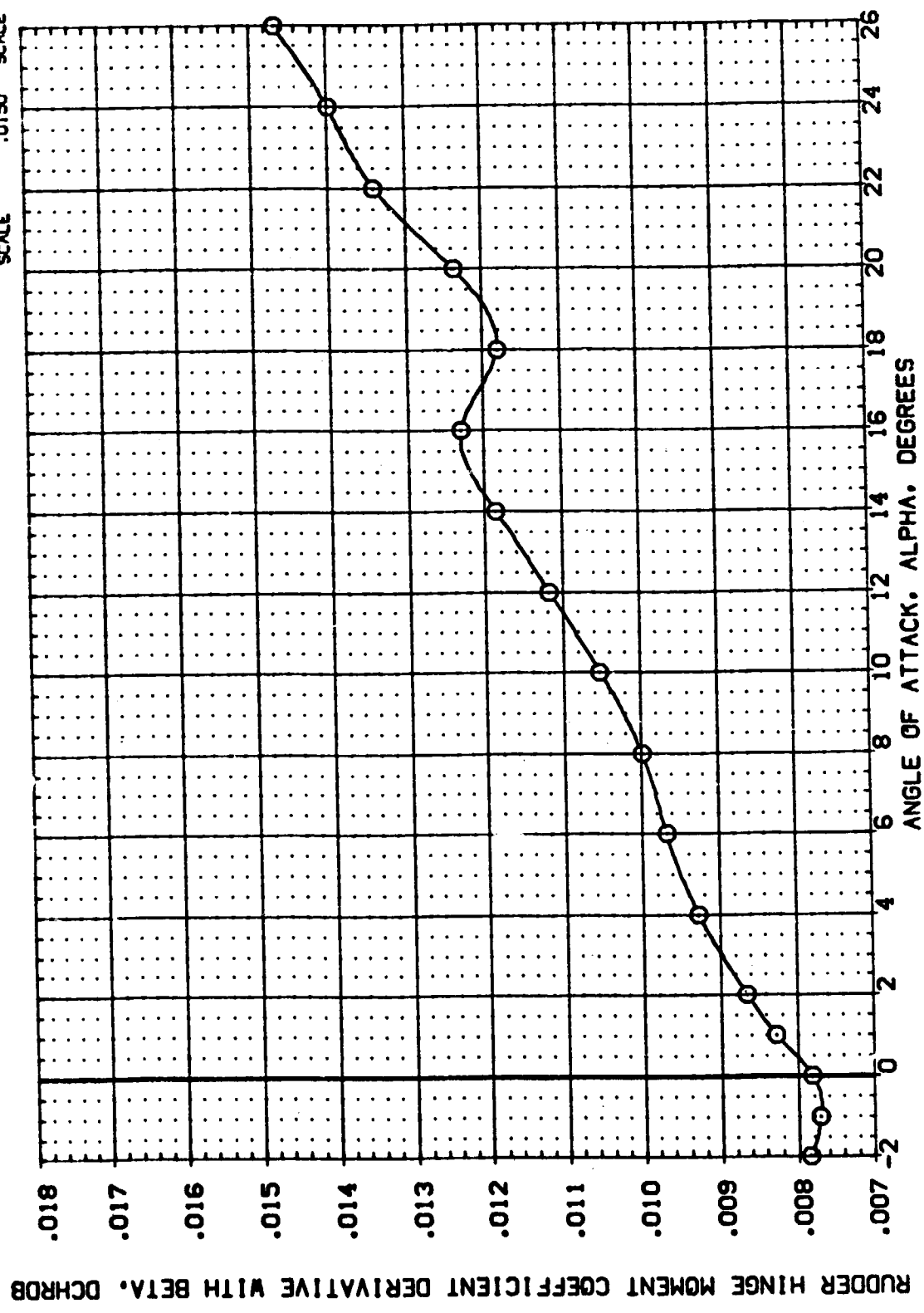


FIGURE 43 0898 ORBITER RUDDER HINGE MOMENT SIDESLIP DERIVATIVE

(A)RN/L = 10.00

APPENDIX
TABULATED SOURCE DATA

Plotted data listings available on request
from Data Management Systems.

DATE 15 NOV 75

TABULATED SOURCE DATA - 0A17

PAGE 1

0A17, LPT110, ORB 3, (B19C7F5M4) (M107E23) (V7R5)

(RP0002) (30 AUG 75)

REFERENCE DATA

XREF = 87.1960 IN. XHRP = 12.5770 INCHES
 LREF = 19.3545 INCHES YHRP = .0000 INCHES
 BREF = 14.0502 ZHRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .243
 ELEVR = .000 AILRON = .000
 RUDDER = .000 BOFLAP = -14.250
 SPDRK = 24.920

RUN NO. 7/0 RN/L = 2.47 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	ON	CA	CLM	CY	CYN	CBL	CAB
2.473	-3.577	-.00109	-.23580	.05989	.04546	.00328	-.00024	-.00043	.04302
2.479	-.328	-.00150	-.09440	.06421	.04407	.00450	-.00033	-.00076	.04315
2.479	1.739	-.00182	-.00157	.06163	.04969	.00447	.00014	-.00089	.04342
2.470	3.867	-.00178	.09374	.04633	.05027	.00484	-.00009	-.00099	.04415
2.460	5.969	-.00170	.19336	.04749	.05177	.00481	-.00016	-.00085	.04228
2.459	8.172	-.00193	.30621	.03369	.04246	.00567	-.00029	-.00045	.04167
2.478	10.221	-.00221	.39806	.01904	.04420	.00593	-.00004	-.00100	.04221
2.475	12.313	-.00258	.50291	.00422	.05163	.00769	-.00045	-.00125	.04178
2.476	14.372	-.00294	.60761	-.01025	.05328	.00941	-.00085	-.00150	.04174
2.479	16.590	-.00349	.72208	-.02587	.04987	.00880	.00035	-.00221	.04329
2.471	18.702	-.00358	.85613	-.04035	.04284	.00769	.00132	-.00189	.04465
2.464	20.868	-.00282	.98768	-.05224	.03258	.00743	-.00086	-.00181	.04767
2.459	23.031	-.00282	1.13085	-.04608	.02225	.00820	-.00011	.00337	.05608
2.450	25.152	-.00237	1.27067	-.02771	.01051	.01048	-.00201	.00481	.06132
2.468	27.196	-.00703	1.29346	-.02239	.03865	.03284	-.00690	-.00598	.06987
GRADIENT		-.00010	.04428	-.00044	.00077	.00020	.00004	-.00008	.00014

RUN NO. 6/0 RN/L = 4.78 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	ON	CA	CLM	CY	CYN	CBL	CAB
4.812	-2.593	.00411	-.20683	.06006	.05403	-.00718	.00100	-.00008	.04576
4.823	-.425	.00437	-.11338	.06299	.03343	-.00751	.00102	-.00030	.04547
4.813	1.748	.00457	-.00879	.06114	.05012	-.00813	.00120	-.00030	.04628
4.802	3.898	.00446	.08347	.05519	.03566	-.00756	.00095	-.00040	.04630
4.808	6.084	.00320	.18771	.04565	.03291	-.00595	.00097	-.00039	.04480
4.797	8.219	.00323	.28524	.03234	.03169	-.00569	.00090	-.00064	.04504
4.810	10.367	.00275	.38881	.01735	.03215	-.00485	.00091	-.00108	.04415
4.809	12.554	.00202	.49090	.00105	.03604	-.00327	.00091	-.00091	.04433
4.807	14.775	.00193	.60333	-.01728	.03562	-.00365	.00098	-.00119	.04567
4.808	17.006	.00155	.73592	-.03431	.03175	-.00347	.00076	-.00237	.04578
4.803	19.129	.00135	.86105	-.04940	.04538	-.00199	.00090	-.00210	.04861
4.796	21.303	.00157	.98357	-.06051	.03685	-.00096	.00175	-.00088	.05025
4.804	23.616	.00114	1.12027	-.05910	.03226	.00147	-.00171	-.00108	.05443
4.799	25.842	.00134	1.25458	-.05581	.02435	.00494	-.00382	.00417	.06154
4.779	27.860	-.00506	1.29162	-.04680	.04029	.01669	-.00518	-.00467	.06730
GRADIENT		.00006	.04507	-.00076	-.00021	-.00008	.00000	-.00005	.00011

0A17,LTPT138,ORB 3,(B19C7F5M4)(M10TE23)(V7R5)

(RPP002) (30 AUG 73)

REFERENCE DATA

SREF = 87.1560 56.1N. XMRP = 12.3770 INCHES
 LREF = 19.3545 INCHES YMRP = .0000 INCHES
 BREF = 14.0502 ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .243
 ELEVR = .000 AILRON = .000
 RUDDER = .000 BDFLAP = -14.250
 SPOBRK = 24.920

RUN NO. 5/ 0 RN/L = 10.12 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB
10.265	-2.806	.00989	-.21408	.05949	.05217	-.00649	.00029	-.00042	.04594
10.271	-.480	.01023	-.10909	.06294	.05088	-.00703	.00049	-.00049	.04718
10.259	1.798	.00959	-.00484	.06145	.05081	-.00694	.00064	-.00055	.04607
10.252	4.077	.00915	.09972	.05547	.05026	-.00692	.00078	-.00082	.04686
10.255	6.365	.00834	.20363	.04482	.04936	-.00584	.00044	-.00065	.04591
10.224	6.716	.00672	.31344	.03008	.05004	-.00499	.00049	-.00076	.04410
10.237	10.662	.00534	.41467	.01436	.05045	-.00422	.00046	-.00102	.04534
10.233	13.315	.00520	.53424	-.00332	.05246	-.00446	.00070	-.00127	.04644
10.257	15.580	.00500	.64997	-.02418	.05035	-.00355	.00035	-.00134	.04900
10.202	17.927	.00356	.79339	-.04204	.04099	-.00170	-.00030	-.00159	.04946
10.201	20.320	.00220	.92266	-.05481	.03316	.00092	-.00130	-.00248	.05027
10.239	22.593	.00286	1.05839	-.06146	.02515	.00335	-.00218	-.00373	.05330
10.211	25.081	-.00100	1.19778	-.06102	.01738	.00341	-.00154	-.00611	.05963
10.179	27.430	-.00369	1.31081	-.05931	.01682	.00272	-.00015	-.00780	.06749
10.124	29.308	-.00268	1.33509	-.05255	.04037	-.00281	.00147	-.00882	.06136
GRADIENT		-.00012	.04559	-.00059	-.00026	-.00005	.00007	-.00003	.00007

RUN NO. 4/ 0 RN/L = 11.99 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB
12.192	-2.876	.00968	-.21318	.05994	.05104	-.00520	-.00011	-.00046	.04662
12.141	-.500	.00995	-.10585	.06353	.05117	-.00575	.00010	-.00059	.04687
12.153	1.761	.00958	-.00158	.06195	.04903	-.00545	.00006	-.00070	.04687
12.147	4.095	.00854	.10186	.05575	.04932	-.00496	.00010	-.00075	.04758
12.159	6.369	.00874	.20835	.04473	.04907	-.00526	.00021	-.00080	.04659
12.122	6.736	.00732	.31817	.02972	.04905	-.00439	.00014	-.00090	.04372
12.125	11.119	.00590	.43056	.01240	.05003	-.00351	.00009	-.00116	.04571
12.139	13.329	.00473	.53744	-.00569	.05150	-.00299	.00017	-.00132	.04704
12.098	15.635	.00432	.65893	-.02490	.05040	-.00263	.00028	-.00139	.04705
12.096	18.038	.00342	.80330	-.04192	.03932	-.00147	-.00029	-.00179	.05136
12.103	20.501	.00242	.94369	-.05485	.03059	.00040	-.00102	-.00215	.05165
12.066	22.745	-.00129	1.07322	-.06085	.02378	.00447	-.00216	-.00311	.05472
12.125	25.224	.00351	1.20394	-.05713	.01928	-.00253	.00024	-.00442	.06174
12.018	27.451	.00016	1.30867	-.05572	.02032	-.00171	.00090	-.00508	.06815
11.992	29.430	-.00709	1.33483	-.05149	.03689	-.00238	.00115	-.00992	.07964
GRADIENT		-.00016	.04528	-.00061	-.00031	.00004	.00003	-.00004	.00012

DATE 15 NOV 75 TABULATED SOURCE DATA - 0417

(ZPP002) (30 AUG 73)

CA17, L10T1138, ORB 3, (B19C77944) (M10T223) (V785)

REFERENCE DATA
 BOP = 07.1960 80.1M. XOPP = 12.5770 INCHES
 LKOP = 19.3545 INCHES YOPP = .0000 INCHES
 BOP = 14.0902 ZOPP = 6.0000 INCHES
 SCALE = .0190 SCALE
 BETA = .000 MACH = .243
 ELEVTR = .000 ALTITUDE = .000
 RUDDER = .000 ROLLAP = -14.250
 SPORER = 24.920

PARAMETRIC DATA

RUN NO. 7/ 0 RUN/L = 2.47 GRADIENT INTERVAL = -5.00/ 5.00

RUN/L	ALPHA	Q (P87)	CL	CD	L/D	CAC	CFB	CPBM	CPSC
2.473	-3.577	132.79411	-.23160	.07448	-3.10941	.01393	-.21180	-.29405	-.24789
2.474	-.326	133.45532	-.09403	.06475	-1.43214	.01407	-.20833	-.29590	-.25032
2.475	1.729	133.45820	-.07344	.06155	-.05590	.01405	-.21003	-.29117	-.24999
2.476	3.867	132.74975	.08973	.06233	1.43499	.01410	-.21727	-.29782	-.25086
2.480	5.809	131.35045	.18737	.06741	2.77937	.01371	-.20480	-.29691	-.24403
2.459	8.172	131.34980	.29828	.07707	3.87024	.01300	-.20755	-.27556	-.23131
2.476	10.221	133.17625	.39836	.08936	4.34591	.01335	-.21655	-.28533	-.23762
2.475	12.313	133.17625	.49044	.11137	4.40392	.01371	-.20772	-.25886	-.24403
2.476	14.372	133.31967	.59114	.14209	4.19563	.01375	-.20949	-.26328	-.24474
2.479	16.593	133.59636	.69941	.18136	3.85590	.01431	-.22993	-.28291	-.25463
2.471	18.702	132.75586	.82386	.23650	3.46650	.01470	-.24726	-.28834	-.26156
2.464	20.868	131.91489	.94151	.30301	3.10719	.01525	-.26477	-.32761	-.27132
2.459	23.031	131.49176	1.05874	.40701	2.64682	.01817	-.32258	-.36488	-.32334
2.450	25.132	130.64716	1.16197	.51497	2.25636	.01877	-.36455	-.40821	-.33401
2.468	27.196	132.35028	1.16070	.57125	2.05188	.02302	-.40718	-.45024	-.40965
GRADIENT		.01257	.04318	-.00168	.61027	.00002	-.00063	-.00026	-.00026

RUN NO. 6/ 0 RUN/L = 4.76 GRADIENT INTERVAL = -5.00/ 5.00

RUN/L	ALPHA	Q (P87)	CL	CD	L/D	CAC	CFB	CPBM	CPSC
4.812	-2.593	265.58624	-.20340	.06936	-2.93995	.01484	-.22874	-.30757	-.26415
4.823	-.425	267.27343	-.11291	.06383	-1.76893	.01511	-.23794	-.31458	-.26890
4.813	1.749	266.15193	-.01085	.06524	-.17502	.01501	-.22470	-.30930	-.26716
4.802	3.898	265.03123	.07932	.06074	1.30934	.01487	-.22787	-.32117	-.26097
4.808	6.084	265.86960	.18182	.06529	2.78492	.01405	-.21900	-.29215	-.24995
4.797	8.219	264.75270	.27769	.07278	3.81553	.01417	-.21768	-.28639	-.25220
4.810	10.387	266.29599	.37931	.08716	4.33186	.01411	-.20877	-.28776	-.25156
4.809	12.554	266.15676	.47893	.10772	4.14608	.01433	-.22576	-.29924	-.25526
4.807	14.775	265.73876	.58972	.13787	4.25982	.01466	-.22582	-.31307	-.26086
4.808	17.006	266.29702	.71186	.18184	3.91473	.01497	-.24255	-.29928	-.26633
4.803	19.129	265.73710	.82969	.23549	3.52330	.01587	-.26597	-.32916	-.28241
4.796	21.303	265.31358	.93835	.30705	3.11000	.01596	-.26873	-.35380	-.28391
4.804	23.618	266.15772	1.09011	.39469	2.69082	.01711	-.32720	-.35932	-.35442
4.799	25.842	265.74094	1.15345	.49663	2.32256	.01935	-.37683	-.39576	-.34440
4.778	27.860	263.22042	1.16378	.56221	2.07503	.02095	-.41341	-.42311	-.37597
GRADIENT		-.12864	.04401	-.00133	.64233	-.00003	-.00073	-.00164	-.00032

OM17,LTPT138,ORB 3, (B19C7F5M4) (M107E23) (VTR5)

(ZPP002) (30 AUG 73)

REFERENCE DATA

SREF = 87.1580 IN. XMRP = 12.5770 INCHES
 LREF = 19.3545 INCHES YMRP = .0000 INCHES
 BREF = 14.0502 ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .243
 ELEVR = .000 ATLON = .000
 RUDDER = .000 EDFLAP = -14.250
 SPDREF = 24.920

RUN NO. 5/ 0 RV/L = 10.12 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	Q (PSF)	CL	CD	L/D	CAC	CPB	CPBM	CPSC
10.265	-2.806	576.92239	-2.21991	.06991	-3.01684	.01472	-.22860	-.34268	-.26188
10.271	-1.480	577.49087	-1.0856	.06385	-1.70222	.01503	-.23525	-.31969	-.26741
10.299	1.798	574.82512	-.00676	.06126	-1.11036	.01497	-.23525	-.33036	-.26630
10.292	4.077	576.23355	.09532	.06242	1.53024	.01504	-.22183	-.33629	-.26761
10.235	6.365	577.35965	.19740	.05712	2.94102	.01498	-.22241	-.33735	-.26654
10.224	8.718	574.41740	.30526	.07723	3.95239	.01431	-.22417	-.31293	-.25469
10.237	10.682	576.24144	.40453	.09227	4.38416	.01422	-.23253	-.29279	-.25309
10.233	13.315	575.68672	.52110	.11786	4.42118	.01454	-.23100	-.31138	-.25879
10.257	15.580	579.32252	.63259	.15128	4.18155	.01588	-.23932	-.33077	-.28266
10.202	17.927	572.87744	.76781	.20420	3.76009	.01609	-.25067	-.36366	-.28629
10.201	20.320	572.19107	.89084	.27143	3.28206	.01635	-.27952	-.35005	-.29098
10.239	22.593	577.51364	1.00078	.34987	2.86047	.01748	-.31669	-.38060	-.31112
10.211	25.081	574.71534	1.11071	.45247	2.45475	.01902	-.36124	-.39618	-.33842
10.179	27.430	571.91068	1.19076	.55121	2.16029	.02137	-.40659	-.42170	-.38031
10.124	29.308	566.02711	1.18992	.60771	1.95805	.02464	-.45589	-.57985	-.43841
GRADIENT			.04452	-.00110	.66397	.00004	.00088	.00039	-.00070

RUN NO. 4/ 0 RV/L = 11.99 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	Q (PSF)	CL	CD	L/D	CAC	CPB	CPBM	CPSC
12.192	-2.876	624.24730	-.20990	.07056	-2.97475	.01474	-.22617	-.35439	-.26228
12.141	-1.500	620.73327	-.10529	.06445	-1.63363	.01510	-.23567	-.33094	-.26872
12.153	1.761	623.68447	-.00348	.06188	-.05626	.01484	-.23709	-.34639	-.26412
12.147	4.095	622.42478	.09762	.06288	1.55236	.01513	-.23481	-.34767	-.26922
12.159	6.389	624.82130	.20225	.06766	2.98935	.01521	-.22380	-.33319	-.27072
12.122	8.736	620.74359	.30996	.07770	3.98906	.01430	-.22265	-.30564	-.25446
12.125	11.119	621.73064	.42011	.09520	4.41292	.01461	-.22141	-.30048	-.26006
12.133	13.329	623.56511	.52429	.11837	4.42922	.01524	-.23079	-.32207	-.27121
12.098	15.655	620.74633	.64121	.15363	4.16821	.01513	-.23942	-.33742	-.26918
12.096	18.038	620.47136	.77680	.20888	3.71881	.01650	-.25659	-.34263	-.29356
12.103	20.501	622.44826	.90313	.27913	3.23947	.01653	-.27382	-.36356	-.29421
12.086	22.745	621.17868	1.01329	.35882	2.82396	.01786	-.31604	-.36943	-.31782
12.123	25.224	624.84495	1.11349	.46138	2.41337	.01946	-.36112	-.40132	-.34633
12.018	27.451	615.12509	1.18701	.55384	2.14325	.02136	-.41982	-.43198	-.38006
11.992	29.430	613.01409	1.18788	.61103	1.94407	.02495	-.44594	-.55659	-.44368
GRADIENT			-.11319	-.00111	.65390	.00004	-.00119	.00026	-.00071

DATE 15 NOV 73

TABULATED SOURCE DATA - 0417

PAGE 5

0417.L1PT138,ORB 3, (B19C77544) (M107E23) (VTR5)

(RPP003) (30 AUG 73)

REFERENCE DATA

SRCP = 87.1960 SQ. IN. XMRP = 12.5770 INCHES
 LRCP = 19.3545 INCHES YMRP = .0000 INCHES
 BRCP = 14.0502 ZMRP = 6.0000 INCHES
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .254
 ELEVTR = -24.100 AILBOM = .000
 RUDDER = .000 BOFLAP = -14.250
 SPOBRK = 24.920

RUN NO. 8/0 RN/L = 4.73 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CSL	CAB
4.730	-3.064	.00909	-.58135	.09620	.21312	-.00796	.00072	.00026	.04009
4.734	-.883	.00446	-.48435	.10151	.21261	-.00727	.00061	.00036	.04020
4.725	1.306	.03484	-.38936	.10348	.21232	-.00794	.00069	.00013	.03952
4.722	3.468	.02513	-.30314	.10159	.21841	-.00961	.00160	.00154	.04055
4.729	5.566	.03473	-.23014	.09457	.22582	-.00804	.00102	-.00013	.03964
4.726	7.728	.02463	-.13769	.08445	.23040	-.00917	.00156	.00055	.04071
4.735	9.905	.00445	-.02504	.07079	.22552	-.00743	.00086	-.00096	.04128
4.730	12.092	.00423	.06891	.05666	.23139	-.00774	.00117	.00047	.04159
4.726	14.261	.00357	.17197	.04128	.23549	-.00727	.00138	.00082	.04325
4.731	16.384	.02276	.26997	.02750	.23949	-.00681	.00172	.00065	.04206
4.723	18.592	.02283	.38140	.01635	.24258	-.00645	.00255	-.00016	.04270
4.712	20.841	.02343	.49486	.00231	.24393	-.00617	.00189	.00169	.04166
4.717	23.029	.02246	.61333	-.00653	.24521	-.00599	-.00021	.00060	.04608
4.720	25.128	.02264	.73134	-.01221	.23811	-.00590	-.00236	.00192	.04762
4.725	27.367	.00332	.86665	-.01625	.22750	.00741	-.00680	.00628	.05208
GRADIENT		.00002	.04237	.00063	.02071	-.00025	.00012	.00017	.00003

RUN NO. 9/0 RN/L = 10.02 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CSL	CAB
10.100	-3.563	.01163	-.61189	.09324	.21792	-.00780	.00043	-.00011	.04175
10.083	-1.261	.01054	-.50910	.10223	.21699	-.00750	.00032	-.00050	.04237
10.120	1.022	.01051	-.40680	.10251	.21641	-.00742	.00063	-.00036	.04078
10.091	3.340	.01104	-.30438	.10006	.21475	-.00810	.00060	-.00021	.04237
10.087	5.561	.00956	-.20668	.09314	.21702	-.00743	.00091	-.00029	.04047
10.093	7.925	.01013	-.10422	.08168	.21903	-.00816	.00112	-.00027	.04391
10.077	10.180	.00901	-.00878	.06828	.22326	-.00729	.00099	-.00100	.04266
10.057	12.433	.00666	.06867	.05369	.22551	-.00749	.00119	-.00106	.04409
10.084	14.713	.00827	.19207	.03785	.23391	-.00798	.00160	-.00078	.04355
10.056	16.964	.00927	.26939	.02447	.24116	-.00859	.00154	-.00024	.04401
10.066	19.235	.00937	.39826	.01230	.24471	-.00810	.00156	-.00021	.04659
10.059	21.560	.00531	.52531	-.00149	.24014	-.00690	.00129	-.00032	.04673
10.069	23.903	.00610	.65010	-.01323	.23563	-.00474	.00044	-.00178	.04737
10.041	26.212	.00566	.77079	-.02163	.22978	-.00475	.00049	-.00311	.04925
10.022	28.597	.00330	.89754	-.02842	.22432	-.00453	.00173	-.00483	.05479
GRADIENT		-.00006	.04449	.00099	-.00046	-.00004	.00005	-.00001	.00001

DATE 15 NOV 73

TABULATED SOURCE DATA - OM17

PAGE 6

OM17,LTPT138,ORB 3,(B19C7F3M4)(M10TE23)(VTR5)

(ZPP003) (30 AUG 73)

REFERENCE DATA

38" = 87.1560 INCHES
 38" = 19.3545 INCHES
 ORF = 14.0502 INCHES
 SCALE = .0150 SCALE

BETA = .000
 ELEVTR = -24.100
 RUDDER = .000
 SPOBRK = 24.920

PARAMETRIC DATA

MACH = .254
 AILRON = .000
 BDFLAP = -14.250

RUN NO. 8/0 RV/L = 4.73 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	Q (PSF)	CL	CD	L/D	CAC	CPB	CFBM	CPSC
4.730	-3.064	265.31903	-57537	.12714	-4.52545	.01212	-.15834	-.29377	-.21572
4.739	-1.883	266.72163	-.48273	.10696	-4.43024	.01185	-.16462	-.32366	-.21068
4.723	1.308	265.31903	-.39212	.09455	-4.14712	.01178	-.16856	-.31144	-.20962
4.722	3.468	265.59505	-.31072	.08295	-3.74595	.01200	-.16075	-.32030	-.21349
4.729	5.566	266.16041	-.23823	.07180	-3.31793	.01164	-.15601	-.28641	-.20711
4.726	7.728	265.74537	-.14780	.06517	-2.26786	.01207	-.14708	-.26427	-.21474
4.735	9.905	267.02481	-.03684	.06543	-.56310	.01156	-.14993	-.29378	-.20577
4.730	12.092	266.58365	.05551	.06984	.79492	.01207	-.16167	-.29406	-.21472
4.726	14.261	266.30458	.15650	.08237	1.89998	.01349	-.17114	-.30212	-.24000
4.731	16.384	267.14588	.25125	.10234	2.45037	.01234	-.19455	-.30567	-.21960
4.723	18.592	266.30766	.35624	.13709	2.59881	.01322	-.21067	-.31380	-.23329
4.712	20.841	265.04807	.46166	.17821	2.59047	.01427	-.22111	-.35140	-.25384
4.717	23.029	265.88748	.56700	.23392	2.42390	.01460	-.23961	-.34331	-.25965
4.720	25.128	266.44771	.66732	.29949	2.22814	.01550	-.24875	-.33678	-.27586
4.725	27.367	267.15105	.77712	.38396	2.02396	.01606	-.29149	-.34319	-.28585
GRADIENT		-.02651	.04080	-.00675	.12127	-.00002	-.00052	-.00282	.00037

RUN NO. 9/0 RV/L = 10.02 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	Q (PSF)	CL	CD	L/D	CAC	CPB	CFBM	CPSC
10.100	-3.563	575.87167	-.60491	.13109	-4.61461	.01262	-.16566	-.31995	-.22465
10.083	-1.261	575.58342	-.50677	.11141	-4.54869	.01193	-.16496	-.33479	-.21230
10.120	1.022	579.93639	-.41056	.09521	-4.31224	.01175	-.16179	-.35929	-.20900
10.091	3.340	576.99754	-.30969	.08216	-3.76931	.01329	-.16340	-.30865	-.23652
10.087	5.561	576.30103	-.21672	.07248	-2.98997	.01173	-.16712	-.30778	-.20877
10.093	7.925	576.72638	-.11451	.06673	-1.71613	.01288	-.17248	-.31651	-.22913
10.077	10.180	575.88570	-.02071	.06565	-.31548	.01132	-.17221	-.29710	-.20500
10.057	12.433	574.48646	.07518	.07176	1.04765	.01225	-.17557	-.380	-.21790
10.084	14.713	578.41467	.17616	.08539	2.06292	.01279	-.17212	-.31751	-.22763
10.058	16.984	575.19507	.26962	.10794	2.49793	.01325	-.21153	-.34650	-.23583
10.066	19.235	576.73841	.37197	.14282	2.60454	.01462	-.22582	-.35265	-.26022
10.039	21.560	574.91780	.46910	.19166	2.55197	.01478	-.24164	-.36433	-.26304
10.069	23.903	578.14956	.59971	.25132	2.38627	.01507	-.23677	-.34253	-.26812
10.041	26.212	575.34615	.70108	.32103	2.18370	.01549	-.26277	-.35240	-.27565
10.022	28.597	573.66646	.80069	.40641	1.97014	.01607	-.34826	-.39130	-.28594
GRADIENT		.33461	.04271	-.00709	.12066	.00008	.00043	.00043	-.00141

DATE 13 NOV 73

RP0004 (30 AUG 73)

TABULATED SOURCE DATA - Q017
Q017, L1PT1138, ORB 3, (B19CT75M4) (M07E23) (V7R5)

REFERENCE DATA

BREV = 87.1960 80.1M. XMRP = 12.3770 INCHES
LREF = 19.3545 INCHES YMRP = .0000 INCHES
BREV = 14.0502 ZMRP = 6.0000 INCHES
SCALE = .0190 SCALE

BETA = .000 MACH = .253
ELEVTR = 11.100 AIRLON = .000
RUDDER = .000 BOFLAP = -14.250
SPDRK = 24.920

PARAMETRIC DATA

RUN NO. 11/ 0 RNVL = 4.56 GRADIENT INTERVAL = -5.00/ 5.00

RNVL	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB
4.564	-2.370	.00193	.05452	.06181	-.06928	-.00148	-.00059	-.00050	.03217
4.569	-.194	.00206	.15368	.06234	-.07105	-.00165	-.00056	-.00084	.05189
4.561	2.023	.00180	.25312	.07821	-.06989	-.00125	-.00048	-.00083	.05087
4.574	4.202	.00147	.35314	.07043	-.06818	-.00134	-.00079	-.00091	.05079
4.568	6.339	.00179	.45244	.05812	-.07194	-.00195	-.00023	-.00102	.04929
4.565	8.479	.00137	.55255	.04342	-.07029	-.00161	-.00012	-.00135	.04967
4.567	10.676	.00055	.65475	.02610	-.06859	-.00039	-.00033	-.00191	.04894
4.595	12.860	.00082	.76284	.00769	-.06548	-.00039	-.00024	-.00149	.04923
4.591	14.978	.00007	.87155	-.00906	-.07051	.00032	-.00023	-.00221	.05112
4.577	17.250	-.00128	1.00355	-.02638	-.06985	.00153	-.00012	-.00333	.05286
4.580	19.399	-.00155	1.12717	-.04003	-.07489	.00340	-.00182	-.00402	.05478
4.573	21.577	-.00230	1.26386	-.04085	-.08277	.00862	-.00301	-.00311	.05948
4.581	23.769	-.00210	1.37805	-.03436	-.08542	.00850	-.00308	.00388	.06556
4.584	25.864	-.00583	1.43648	-.02434	-.07095	.01112	-.00316	.00411	.07274
4.583	GRADIENT	-.00008	.04542	-.00175	.00020	.00004	.00004	-.00006	-.00024

RUN NO. 10/ 0 RNVL = 9.91 GRADIENT INTERVAL = -5.00/ 5.00

RNVL	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB
10.026	-2.298	.00768	.05709	.04098	-.06938	-.00368	-.00042	-.00087	.05378
10.014	-.029	.00698	.15694	.08183	-.07088	-.00348	-.00042	-.00081	.05485
10.030	2.344	.00874	.26888	.07721	-.07187	-.00356	-.00027	-.00089	.05231
9.999	4.528	.00853	.36835	.06877	-.07131	-.00387	-.00016	-.00091	.05212
9.995	6.833	.00556	.47582	.05555	-.07259	-.00326	-.00006	-.00120	.05175
9.995	9.140	.00513	.58241	.03876	-.07188	-.00337	.00014	-.00135	.05048
9.994	11.419	.00348	.68888	.02001	-.06934	-.00332	.00010	-.00189	.05096
10.010	13.722	.00285	.80344	-.00024	-.06877	-.00230	.00031	-.00196	.05364
9.997	16.151	.00227	.92995	-.02092	-.07181	-.00096	-.00025	-.00203	.05255
9.982	18.477	.00110	1.07268	-.03785	-.06878	.00205	-.00153	-.00203	.05634
9.959	20.778	-.00130	1.20660	-.04528	-.06878	.00881	-.00445	-.00404	.05908
9.980	23.014	-.00523	1.31743	-.04130	-.09297	.01163	-.00475	-.00715	.06440
9.970	25.389	-.00894	1.42982	-.03684	-.09456	.01199	-.00346	-.00925	.07023
9.914	27.512	-.01339	1.48836	-.03538	-.07100	.01449	-.00312	-.01196	.07939
	GRADIENT	-.00016	.04568	-.00179	-.00027	.00002	.00004	-.00004	-.00032

CA17, LPT138, ORB 5, (B19C7F3M4) (W10FE23) (V7R5)

(ZPP004) (30 AUG 75)

REFERENCE DATA

SRCP = 87.1990 SQ. IN. XMRP = 12.5770 INCHES
 LREF = 19.3545 INCHES YMRP = .0000 INCHES
 BRCP = 14.0502 ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .253
 ELEVTR = 11.100 AILRON = .000
 RUDDER = .000 BOFLAP = -.4 250
 SPDBRK = 24.920

RUN NO. 11/ 0 RN/L = 4.58 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	Q (PSF)	CL	CD	L/D	CAC	CFB	CFBM	CFSC
4.504	-2.370	265.60735	.05785	.07949	.72783	.01708	-.27792	-.37862	-.30395
4.599	-.194	266.16760	.15394	.08182	1.86193	.01708	-.27106	-.38156	-.30399
4.505	2.035	264.90697	.25023	.08701	2.67590	.01682	-.26418	-.37197	-.29573
4.574	4.202	263.64814	.34703	.09611	3.61066	.01679	-.27092	-.34565	-.29868
4.506	6.339	265.18916	.44326	.10772	4.11494	.01822	-.26083	-.35132	-.28861
4.505	8.479	265.09010	.54010	.12441	4.34126	.01593	-.25688	-.33073	-.28347
4.597	10.676	266.45285	.63858	.14695	4.34565	.01614	-.25856	-.32825	-.28721
4.595	12.860	266.31391	.74199	.17729	4.18527	.01621	-.25527	-.34434	-.28831
4.591	14.978	266.03568	.84449	.21572	3.91472	.01676	-.26447	-.35481	-.29825
4.577	17.250	264.49278	.96825	.27240	3.54714	.01714	-.26780	-.39136	-.30501
4.580	19.359	264.91407	1.07644	.33663	3.19786	.01798	-.29261	-.38445	-.31988
4.573	21.577	264.35369	1.19031	.42881	2.78888	.01950	-.32164	-.40959	-.34690
4.561	23.769	264.92215	1.27502	.52397	2.43337	.02118	-.36074	-.43017	-.37692
4.583	25.884	265.61448	1.30478	.60826	2.115291	.02364	-.40801	-.45836	-.42059
GRADIENT		-.32826	.04398	.00251	.43596	-.00026	.00127	.00493	.00110

RUN NO. 10/ 0 RN/L = 9.91 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	Q (PSF)	CL	CD	L/D	CAC	CFB	CFBM	CFSC
10.026	-2.298	576.35489	.06029	.07863	.76675	.01756	-.28105	-.40557	-.31249
10.014	-.029	575.52796	.15898	.08155	1.94959	.01798	-.28934	-.40953	-.31992
10.030	2.344	576.18755	.26550	.08615	3.01203	.01725	-.27236	-.39750	-.30689
9.999	4.528	575.53181	.36177	.09764	3.70529	.01714	-.27526	-.36578	-.30494
9.995	6.833	575.67294	.46583	.11176	4.16806	.01707	-.26774	-.35695	-.30376
9.995	9.140	576.09340	.56891	.13079	4.34975	.01674	-.25884	-.35013	-.29781
9.994	11.419	576.23947	.67128	.15800	4.30307	.01679	-.26572	-.33600	-.29007
10.010	13.722	578.34459	.78056	.19035	4.10074	.01732	-.27088	-.37357	-.30613
9.982	16.135	577.22643	.89915	.23827	3.77375	.01758	-.27095	-.35982	-.30919
9.982	18.477	576.10621	1.02931	.30425	3.38306	.01812	-.28373	-.39152	-.32235
9.939	20.778	571.82836	1.14419	.38571	2.96634	.01937	-.31269	-.40830	-.34467
9.980	23.014	575.28287	1.22872	.47705	2.57569	.02115	-.35476	-.41787	-.37633
9.970	25.389	576.68551	1.30752	.57977	2.25522	.02335	-.39011	-.43070	-.41543
9.914	27.912	570.37902	1.33659	.65616	2.03670	.02646	-.46310	-.46468	-.47076
GRADIENT		.01507	.04424	.00278	.43271	-.00009	.00153	.00572	.00157

DATE 15 NOV 73

TABULATED SOURCE DATA - 0A17

PAGE 9

0A17,LTPT138,ORB 3,(B19C7F5M4)(M107E23)(V7R5)

(RPP005) (30 AUG 73)

REFERENCE DATA

SREF = 07.1500 SQ. IN. XMRP = 12.5770 INCHES
LREF = 19.3345 INCHES YMRP = .0000 INCHES
BREF = 14.0502 INCHES ZMRP = 6.0000 INCHES
SCALE = .0151 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .254
ELEVTR = .000 AILPON = .000
RUDDER = .000 BDFLAP = 13.750
SPDRBK = 24.920

RUN NO. 12/ 0 RN/L = 4.66 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB
4.663	-2.646	.00826	-.11539	.06133	-.00061	-.00907	.00049	-.00019	.04410
4.666	-.352	.00699	-.01439	.06460	-.00296	-.01016	.00056	-.00023	.04476
4.654	1.066	.00679	.06512	.06156	-.00273	-.01029	.00077	-.00046	.04331
4.652	4.004	.00620	.12496	.05677	-.00367	-.00946	.00095	-.00027	.04382
4.652	6.145	.00634	.26781	.04702	-.00726	-.00932	.00064	-.00019	.04437
4.656	6.308	.00536	.39057	.03362	-.00662	-.00843	.00074	-.00042	.04466
4.657	10.546	.00519	.49561	.01804	-.00661	-.00809	.00067	-.00067	.04623
4.659	12.630	.00536	.59646	.00167	-.00647	-.00870	.00065	-.00096	.04660
4.657	14.645	.00505	.71066	-.01597	-.00555	-.00923	.00136	-.00102	.04676
4.657	17.030	.00469	.83146	-.03274	-.01024	-.00981	.00177	-.00256	.04970
4.660	19.190	.00406	.95370	-.04659	-.01345	-.00694	.00077	-.00266	.05177
4.646	21.397	.00404	1.08473	-.05749	-.01974	-.00205	-.00199	-.00200	.05634
4.649	23.666	.00359	1.24065	-.05683	-.03264	.00066	-.00319	.00082	.06115
4.654	25.876	.00366	1.35498	-.04267	-.03759	-.0006	-.00290	.00050	.06769
4.657	28.031	-.00123	1.39473	-.03707	-.02160	.01006	-.00462	-.00333	.07551
GRADIENT		-.00002	.04592	-.00076	-.00036	-.00011	.00007	-.00002	-.00011

RUN NO. 13/ 0 RN/L = 9.94 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB
9.969	-2.646	.01144	-.12334	.03963	-.00129	-.00766	.00033	.00004	.04411
10.019	-.359	.01134	-.02235	.06235	-.00206	-.00602	.00066	-.00005	.04336
10.006	1.939	.01103	.06153	.06060	-.00293	-.00604	.00079	-.00014	.04457
10.012	4.351	.01032	.19443	.05460	-.00373	-.00790	.00095	-.00012	.04661
9.966	6.494	.00939	.29661	.04496	-.00730	-.00711	.00076	-.00015	.04900
9.953	6.763	.00674	.40643	.03100	-.00666	-.00672	.00077	-.00037	.04863
9.942	11.096	.00824	.51616	.01365	-.00772	-.00652	.00061	-.00060	.05042
9.947	13.345	.00745	.62153	-.00455	-.00601	-.00670	.00117	-.00076	.04767
9.962	15.636	.00717	.74934	-.02593	-.00762	-.00656	.00119	-.00066	.05106
9.929	16.043	.00664	.86592	-.04334	-.01756	-.00323	.00032	-.00096	.05197
9.994	20.477	.00463	1.01604	-.05660	-.02275	-.00112	-.00099	-.00149	.05562
9.929	22.696	.00255	1.14596	-.05996	-.03122	.00142	-.00170	-.00369	.05695
9.995	25.064	.00230	1.27666	-.05664	-.04121	.00057	-.00114	-.00560	.06617
9.943	27.561	-.00240	1.40326	-.05406	-.04202	.00305	-.00062	-.00743	.07194
GRADIENT		-.00016	.04540	-.00072	-.00035	-.00001	.00006	-.00002	.00036

(ZPPDD3) (30 AUG 73)

0A17, L1PT136, ORB 3, (B19C7F5M4) (W107E23) (VTR5)

REFERENCE DATA

SREF = 87.1560 94.1N. XMRP = 12.9770 INCHES
 LREF = 19.3545 INCHES YMRP = .0000 INCHES
 BREF = 14.0302 ZMRP = 6.0000 INCHES
 SCALE = .0130 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .854
 ELEVT = .000 AILRON = .000
 RUDDER = .000 BDFLAP = 13.750
 SPOBRK = 24.920

RUN NO. 12/ 0 RN/L = 4.66 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	Q (PSF)	CL	CD	L/D	CAC	CFB	CFBM	CPSC
4.663	-2.523	265.72996	-1.1258	.06634	-1.69707	.01400	-.26426	-.34524	-.24916
4.656	-.352	264.75365	-.01339	.06489	-.21568	.01414	-.27154	-.37089	-.25183
4.654	1.866	264.89270	.08307	.06430	1.29191	.01393	-.24909	-.33758	-.24793
4.652	4.004	264.75263	.18054	.06954	2.59615	.01410	-.27393	-.37720	-.25095
4.652	6.145	265.03379	.28113	.07756	3.62470	.01411	-.27687	-.38973	-.25102
4.656	8.308	265.59403	.38159	.08990	4.24434	.01420	-.28375	-.38771	-.25270
4.657	10.546	265.73408	.48393	.10845	4.46245	.01431	-.29462	-.41617	-.25458
4.659	12.630	265.87825	.58164	.13225	4.39619	.01496	-.29256	-.40911	-.26463
4.657	14.843	266.15526	.69114	.16706	4.13714	.01504	-.28864	-.42538	-.26766
4.657	17.030	266.15629	.80461	.21221	3.79157	.01590	-.30482	-.40070	-.28301
4.660	19.190	266.45638	.91668	.26759	3.42572	.01704	-.28493	-.34091	-.30325
4.646	21.397	265.03789	1.04026	.34565	3.00776	.01780	-.30769	-.37803	-.31674
4.649	23.688	265.59813	1.15673	.45197	2.59330	.01878	-.33268	-.43297	-.33425
4.654	25.876	266.02344	1.23776	.55295	2.23846	.02101	-.39959	-.45195	-.37378
4.657	28.031	266.44360	1.24654	.62273	2.00492	.02516	-.44495	-.50494	-.44771
GRADIENT			.04461	.00041	.66036	.00000	-.00027	-.00377	-.00007

RUN NO. 13/ 0 RN/L = 9.94 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	Q (PSF)	CL	CD	L/D	CAC	CFB	CFBM	CPSC
9.969	-2.646	575.69125	-1.12046	.06527	-1.84565	.01388	-.23369	-.33252	-.24690
10.019	-.359	580.03760	-.02196	.06249	-.35141	.01449	-.26633	-.32256	-.25781
10.008	1.939	576.64413	.07942	.06312	1.25030	.01478	-.26869	-.33087	-.26303
10.012	4.351	579.76569	.18973	.06919	2.74219	.01465	-.30576	-.37883	-.28065
9.968	6.494	574.72569	.28962	.07824	3.70171	.01514	-.32226	-.43844	-.26937
9.953	8.783	574.03616	.39693	.09270	4.28202	.01477	-.28317	-.41190	-.26276
9.942	11.098	574.03816	.50384	.11295	4.46091	.01488	-.34957	-.42774	-.26471
9.947	13.345	574.88587	.60560	.13903	4.35719	.01532	-.29988	-.39355	-.27252
9.962	15.838	576.70626	.72797	.17956	4.05424	.01571	-.33281	-.44595	-.27950
9.929	18.043	573.76491	.85578	.23320	3.66978	.01620	-.30458	-.47516	-.28831
9.994	20.477	582.03220	.97172	.30222	3.21524	.01759	-.26947	-.56035	-.31303
9.929	22.696	574.61463	1.08039	.36682	2.79300	.01637	-.31653	-.56717	-.32680
9.995	25.084	583.02602	1.18127	.48993	2.40904	.02082	-.38701	-.41183	-.36684
9.943	27.561	577.41482	1.27082	.60229	2.10997	.02213	-.46195	-.44378	-.39378
GRADIENT			.04432	.00056	.85961	.00011	-.00940	-.00636	-.00198

CA17-1YPT138.ORB 3. (B19C7F5M4) (W107E23) (V7R5)

REFERENCE DATA

REF =	67.1560 36.1N.	XARP =	12.5770 INCHES
REF =	19.3945 INCHES	YARP =	.0000 INCHES
REF =	14.0502	ZARP =	6.0000 INCHES
SCALE =	.0150 SCALE		

PARAMETRIC DATA

BETA	=	.000	MACH	=	.254
ELEVTR	=	.000	AILRON	=	.000
RUDDER	=	.000	BDFLAP	=	.000
SPDRK	=	24.920			

DATE	TIME	DN/1	GRADIENT	INTERVAL	3	-5.00/	5.00
11/11/10	14:10	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	14:15	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	14:20	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	14:25	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	14:30	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	14:35	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	14:40	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	14:45	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	14:50	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	14:55	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	15:00	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	15:05	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	15:10	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	15:15	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	15:20	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	15:25	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	15:30	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	15:35	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	15:40	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	15:45	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	15:50	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	15:55	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	16:00	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	16:05	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	16:10	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	16:15	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	16:20	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	16:25	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	16:30	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	16:35	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	16:40	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	16:45	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	16:50	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	16:55	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	17:00	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	17:05	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	17:10	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	17:15	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	17:20	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	17:25	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	17:30	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	17:35	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	17:40	1.12	1.12	1.12	1.12	1.12	1.12
11/11/10	17:45	1.12	1.12				

[illegible]

DATE 15 NOV 73

TABULATED SOURCE DATA - 0A17

PAGE 12

0A17,LTPT136,ORB 3,(B19C775IM4)(M107E23)(V7R3)

(ZPP006) (30 AUG 73)

REFERENCE DATA

BREF = 87.1560 54. IN. XMRP = 12.5770 INCHES
 LREF = 19.3545 INCHES YMRP = .0000 INCHES
 BREF = 14.0902 ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .294
 ELEVTR = .000 AILRON = .000
 RUDDER = .000 BDFLAP = .000
 SPDBRK = 24.920

RUN NO. 14/ 0 RN/L = 4.62 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	Q (PSF)	CL	CD	L/D	CAC	CPB	CPBM	CPSC
4.594	-2.671	265.01012	-1.19261	.06313	-2.41728	.01383	-.20403	-.29256	-.24613
4.596	-.432	265.71237	-.05409	.05924	-.91306	.01361	-.20298	-.28636	-.24225
4.598	1.722	265.71237	.04067	.05829	.69771	.01339	-.21148	-.29129	-.23818
4.576	3.676	263.33457	.13548	.06021	2.24994	.01309	-.20516	-.28792	-.23296
4.603	6.124	266.55562	.23808	.06636	3.56756	.01370	-.19692	-.28359	-.24369
4.597	6.240	265.43832	.34214	.07731	4.42411	.01351	-.18550	-.27254	-.24046
4.586	10.364	264.87316	.47548	.09249	4.70827	.01358	-.16776	-.27719	-.24164
4.593	12.579	265.57752	.53937	.11820	4.64171	.01416	-.20169	-.29630	-.25202
4.587	14.724	265.43127	.64518	.14831	4.35010	.01420	-.22403	-.29845	-.25262
4.592	16.910	265.71859	.76501	.19390	3.94531	.01514	-.23645	-.32145	-.26942
4.605	19.129	267.25777	.87498	.24850	3.32109	.01512	-.23651	-.32168	-.26911
4.573	21.299	263.75561	1.00665	.32809	3.08706	.01602	-.26976	-.34456	-.28501
4.596	23.685	266.55876	1.11921	.42695	2.67920	.01908	-.32679	-.39296	-.33951
4.576	25.745	264.16010	1.20392	.52627	2.26765	.02101	-.38390	-.41911	-.37391
4.615	27.817	266.60786	1.18216	.57591	2.09273	.02283	-.40891	-.45016	-.40664
	GRADIENT	-.22816	.04400	-.00045	.71619	-.00011	-.20055	.00042	.00200

DATE 15 NOV 73

TABULATED SOURCE DATA - QM17

PAGE 13

Q017.L17T136,CR0 3,(B19C775M4)(M107E23)(V7R3)

(RPP007) (30 AUG 73)

REFERENCE DATA

SRF = 97.1560 SQ.IN. XMRP = 12.5770 INCHES
 LREF = 19.3545 INCHES YMRP = .0000 INCHES
 BRD = 14.0302 ZMRP = 6.0000 INCHES
 SCALE = .0190 SCALE

BETA = .000 MACH = .246
 RUDDR = .000 AIRCRN = .000
 SPDGRK = .000 BOTLAP = .000

PARAMETRIC DATA

RUN NO. 19/ 0 RN/L = 2.35 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB
2.349	-2.323	.00451	-.14438	.04912	.01393	-.01349	.00066	-.00043	.03906
2.351	-.345	.00392	-.04792	.05141	.01296	-.01206	.00096	-.00044	.03874
2.352	1.763	.00340	.04731	.04836	.01642	-.01107	.00117	-.00012	.03879
2.345	3.323	.00439	.14524	.04309	.01462	-.01327	.00090	-.00023	.03890
2.339	5.954	.00361	.23414	.03371	.01502	-.01099	.00074	-.00026	.03923
2.351	6.074	.00333	.34101	.02192	.01156	-.01093	.00115	-.00012	.03939
2.363	10.207	.00337	.44673	.00710	.01191	-.01095	.00114	-.00045	.04027
2.356	12.273	.00299	.54890	-.00765	.01563	-.00934	.00274	-.00110	.04097
2.352	14.422	.00236	.65233	-.02357	.01950	-.00747	.00061	-.00067	.04105
2.358	16.614	.00296	.77254	-.03801	.01370	-.01242	.00303	-.00166	.04251
2.350	16.766	.00235	.89777	-.05124	.00636	-.01249	.00303	-.00153	.04409
2.346	20.665	.00223	1.03665	-.06073	-.00180	-.00566	-.00022	-.00190	.04625
2.347	23.067	.00279	1.18257	-.04443	-.01698	-.01403	.00342	.00655	.05367
2.351	25.146	.00119	1.30220	-.03197	-.01926	.00012	-.00196	.00271	.06059
2.354	27.187	-.00246	1.33537	-.02748	.00727	.01661	-.00326	-.00716	.06725
GRADIENT		-.00004	.04495	-.00098	.00025	.00008	.00002	.00004	-.00002

RUN NO. 16/ 0 RN/L = 4.72 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB
4.770	-2.629	.00311	-.15646	.04847	.01875	-.00642	.00096	-.00024	.04227
4.768	-.468	.00450	-.06120	.04939	.01905	-.00776	.00109	-.00029	.04278
4.764	1.666	.00466	.03517	.04746	.01919	-.00794	.00120	-.00039	.04280
4.753	3.619	.00463	.13212	.04163	.01826	-.00652	.00120	-.00049	.04146
4.755	6.072	.00492	.24143	.03162	.01691	-.00636	.00105	-.00034	.04350
4.767	8.244	.00444	.34154	.01793	.01636	-.00798	.00116	-.00036	.04135
4.747	10.401	.00362	.44680	.00311	.01807	-.00719	.00116	-.00072	.04306
4.749	12.582	.00374	.55158	-.01350	.02083	-.00729	.00127	-.00090	.04291
4.751	14.717	.00356	.66037	-.03015	.02132	-.00762	.00156	-.00110	.04404
4.757	16.999	.00312	.76964	-.04737	.01634	-.00749	.00161	-.00265	.04602
4.761	19.126	.00161	.87010	-.06175	.01214	-.00433	.00103	-.00265	.04767
4.755	21.312	.00179	1.04645	-.07142	.00353	-.00012	-.00145	-.00197	.04927
4.747	23.604	.00117	1.19493	-.06709	-.00642	.00415	-.00323	.00042	.05593
4.753	25.679	.00259	1.30266	-.06439	-.00969	.00456	-.00459	.00549	.06166
4.722	27.771	-.00297	1.34414	-.05366	.00707	.01332	-.00512	-.00316	.06626
GRADIENT		-.00003	.04475	-.00076	-.00006	-.00002	.00003	-.00005	-.00023

DATE 15 NOV 73

TABULATED SOURCE DATA - OA17

PAGE 14

(RPP007) (30 AUG 73)

OA17.LTPT138,ORB 3,(B19C7F5M4)(M10TE23)(V7R5)

REFERENCE DATA

SRCF = 87.1960 SQ.IN. XMRP = 12.5770 INCHES
 LREF = 19.3345 INCHES YMRP = .0000 INCHES
 BREF = 14.0302 ZMRP = 6.0000 INCHES
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .246
 ELEVR = .000 AILRON = .000
 RUDDER = .000 BDFLAP = .000
 SPDBRK = .000

RUN NO. 17/ 0 RN/L = 9.91 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB
10.121	-2.811	.01129	-.16812	.04506	.02024	-.00842	.00093	-.00024	.04410
10.049	-.532	.01106	-.06375	.04813	.01854	-.00836	.00095	-.00030	.04570
10.032	1.824	.01079	.04391	.04687	.01810	-.00840	.00105	-.00038	.04317
10.030	4.072	.00941	.14424	.04040	.01760	-.00762	.00107	-.00043	.04414
10.037	6.386	.00947	.24955	.02953	.01668	-.00789	.00121	-.00039	.04270
10.019	8.697	.00945	.35916	.01481	.01667	-.00797	.00123	-.00061	.04454
10.045	11.034	.00831	.47142	-.00198	.01732	-.00729	.00124	-.00079	.04616
10.039	13.264	.00836	.57815	-.01997	.01889	-.00814	.00167	-.00092	.04885
10.025	15.547	.00787	.69545	-.03694	.01908	-.00793	.00170	-.00097	.04785
10.006	18.045	.00638	.84373	-.05752	.00792	-.00549	.00183	-.00116	.04909
10.076	20.240	.00430	.97192	-.06896	.00058	-.00203	-.00037	-.00231	.05046
10.353	22.556	.00217	1.10321	-.07468	-.00788	.00108	-.00137	-.00334	.05221
9.985	25.040	.00044	1.23693	-.07263	-.01634	.00126	-.00086	-.00643	.05985
9.958	27.177	-.00129	1.34722	-.07068	-.01869	.00113	-.00015	-.00739	.06770
9.912	29.302	.00052	1.38726	-.06454	-.00123	-.00237	.00112	-.00816	.07780
GRADIENT		-.00026	.04542	-.00066	-.00038	.00010	.00002	-.00003	-.00011

RUN NO. 18/ 0 RN/L = 11.43 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB
11.662	-2.774	.01232	-.16490	.04500	.01966	-.00847	.00082	-.00018	.04402
11.655	-.429	.01174	-.06034	.04795	.01943	-.00808	.00085	-.00030	.04423
11.634	1.865	.01122	.04416	.04662	.01848	-.00801	.00096	-.00041	.04156
11.649	4.252	.01132	.15300	.03991	.01725	-.00840	.00108	-.00037	.04398
11.647	6.418	.01035	.25009	.02924	.01669	-.00768	.00105	-.00043	.04486
11.642	8.762	.00992	.36130	.01461	.01612	-.00762	.00113	-.00060	.04523
11.639	11.133	.00907	.47321	-.00274	.01749	-.00724	.00117	-.00062	.04595
11.653	13.432	.00881	.58209	-.02136	.01963	-.00770	.00150	-.00095	.04958
11.618	15.679	.00874	.70115	-.04019	.01846	-.00786	.00157	-.00097	.04783
11.636	18.092	.00799	.84211	-.05795	.00791	-.00713	.00139	-.00117	.04853
11.624	20.502	.00558	.98562	-.06796	-.00243	-.00118	-.00129	-.00229	.05024
11.585	22.795	.00297	1.11506	-.07506	-.01019	.00054	-.00129	-.00372	.05435
11.553	25.174	.00330	1.24554	-.07251	-.01567	-.00121	-.00044	-.00481	.06195
11.502	27.454	.00085	1.35980	-.06980	-.01719	-.00093	-.00023	-.00486	.06920
11.434	29.652	-.00136	1.38932	-.06181	.00352	-.00058	-.00081	-.00657	.07985
GRADIENT		-.00015	.04526	-.00071	-.00035	.00001	.00004	-.00003	-.00012

DATE 15 NOV 73

TABULATED SOURCE DATA - QAI7

PAGE 15

QAI7,LTPT136,ORB 3,(B19CTF,NA) (R107E23) (V7R5)

(ZPP007) (30 AUG 73)

REFERENCE DATA

SRCF = 97.1560 36.1N. XMRP = 12.5770 INCHES
 LREF = 19.3545 INCHES YMRP = .0000 INCHES
 BRUF = 14.0502 ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .246
 EL VTR = .000 AILRON = .000
 RL/DER = .000 BOFLAP = .000
 SPOBRK = .000

RUN NO. 19/ 0 RV/L = 2.35 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	Q (PSF)	CL	CD	L/D	CAC	CPB	CPBH	CPSC
2.349	-2.523	131.43564	-.14208	.05343	-2.58326	.01199	-.18787	-.27852	-.21331
2.351	-.345	131.85576	-.04761	.05170	-.92069	.01197	-.18453	-.27556	-.21298
2.352	1.763	131.99700	.04580	.04979	.91983	.01215	-.17750	-.27016	-.21618
2.345	3.923	131.15672	.14195	.05292	2.68225	.01166	-.17932	-.26304	-.21102
2.339	5.954	130.45662	.22938	.05782	3.96726	.01194	-.17086	-.27310	-.21250
2.351	8.074	131.86211	.33460	.06921	4.83493	.01212	-.18452	-.26255	-.21570
2.363	10.207	133.68156	.43840	.08616	5.08855	.01264	-.16815	-.25390	-.22491
2.356	12.273	132.96287	.53799	.10920	4.92665	.01301	-.17530	-.26690	-.23155
2.352	14.422	132.55645	.63764	.13965	4.56606	.01266	-.19302	-.26769	-.22879
2.358	16.614	132.56652	.75116	.18447	4.07196	.01335	-.21983	-.28208	-.23756
2.350	18.768	132.14098	.86652	.24033	3.60551	.01375	-.23620	-.30984	-.24472
2.346	20.885	131.71995	.99224	.31360	3.16400	.01465	-.26210	-.31945	-.26077
2.347	23.087	131.86120	1.10543	.42246	2.61664	.01762	-.31379	-.36976	-.31349
2.351	25.148	132.00697	1.19235	.52443	2.27362	.01996	-.35504	-.42821	-.35509
2.354	27.187	132.56652	1.20040	.58569	2.04956	.02245	-.39426	-.44881	-.39940
GRADIENT	-.03237	.04409	-.00044	-.00044	.81948	-.00001	.00152	.00200	.00017

RUN NO. 16/ 0 RV/L = 4.72 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	Q (PSF)	CL	CD	L/D	CAC	CPB	CPBH	CPSC
4.770	-2.629	265.25722	-.15416	.05360	-2.87616	.01304	-.19486	-.30329	-.23200
4.768	-.468	265.26017	-.06079	.04989	-1.21850	.01333	-.20082	-.29423	-.23727
4.764	1.686	265.12002	.03376	.04848	.69646	.01275	-.19747	-.28694	-.22584
4.753	3.819	264.27808	.12905	.05034	2.56357	.01228	-.20259	-.26868	-.21851
4.755	6.072	264.56327	.23673	.05629	4.13462	.01291	-.17831	-.30166	-.22971
4.767	8.244	266.10601	.33544	.06672	5.02771	.01224	-.17049	-.28379	-.21785
4.747	10.401	264.14565	.43889	.06372	5.24216	.01266	-.17909	-.26639	-.22886
4.749	12.587	264.42796	.54127	.10698	5.05962	.01249	-.19288	-.30670	-.22227
4.751	14.717	265.26999	.64636	.13861	4.66333	.01331	-.19631	-.29343	-.23684
4.757	16.999	265.97276	.76899	.18556	4.14423	.01422	-.21202	-.31190	-.25310
4.761	19.128	266.87450	.88009	.23988	3.66894	.01501	-.23692	-.32753	-.26706
4.755	21.312	266.25504	1.00085	.31380	3.18945	.01549	-.26069	-.35410	-.27562
4.747	23.604	265.41602	1.12182	.41699	2.69031	.01688	-.31879	-.38306	-.33597
4.753	25.879	266.54027	1.20191	.50644	2.37325	.01976	-.39110	-.41875	-.35165
4.722	27.771	263.31797	1.21442	.57860	2.09889	.02213	-.38134	-.44515	-.39386
GRADIENT	-.14316	.04392	-.00052	-.00052	.84812	-.00013	-.00045	.00355	.00236

Q017,LTPT1138,ORB 3,(B19C7FSM4) (W07E23) (V7R5)

(ZPP007) (30 AUG 73)

REFERENCE DATA

SRF = 87.1960 SQ. IN. XMRP = 12.5770 INCHES
 LREF = 19.3545 INCHES YMRP = .0000 INCHES
 BRP = 14.0502 ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .246
 ELEVR = .000 AILRON = .000
 RUDDER = .000 BOFLAP = .000
 SPDRK = .000

RUN NO. 17/ 0 RN/L = 9.91 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	Q (PSF)	CL	CD	L/D	CAC	CFB	CPBM	CPSC
10.121	-2.811	581.09565	-1.16571	.05325	-3.11212	.01342	-1.9849	-.30963	-.23884
10.049	-.532	576.64508	-.06330	.04872	-1.29844	.01446	-.21772	-.34905	-.25737
10.032	1.824	575.66999	.04239	.04824	.87876	.01368	-1.9762	-.31640	-.24690
10.030	4.072	575.67196	.14101	.03054	2.79018	.01397	-.19291	-.29852	-.24863
10.037	6.386	579.18040	.24471	.05710	4.28548	.01217	-1.9229	-.28518	-.21656
10.019	8.697	575.67984	.35279	.06895	5.11668	.01368	-.20412	-.31599	-.24344
10.045	11.034	578.62887	.46309	.08829	5.24533	.01343	-2.0236	-.31553	-.23906
10.039	13.264	578.63379	.56731	.11322	5.01086	.01311	-.22690	-.34169	-.26890
10.025	15.547	577.51561	.68044	.14888	4.57040	.01353	-2.1784	-.34760	-.24069
10.006	18.045	575.25346	.82005	.20667	3.96788	.01374	-2.3595	-.33002	-.28005
10.076	20.240	580.99190	.93576	.27154	3.44611	.01564	-2.5919	-.34910	-.27832
10.053	22.556	579.05122	1.04746	.35421	2.93718	.01688	-2.7559	-.36644	-.30038
9.985	25.040	573.87720	1.15142	.45772	2.51555	.01916	-3.5914	-.40068	-.34099
9.958	27.177	570.94179	1.23077	.55246	2.22779	.02229	-4.1382	-.45230	-.39670
9.912	29.302	566.45636	1.24135	.62266	1.99364	.02605	-4.0084	-.56196	-.46356
GRADIENT		-7.5005	.04459	-.00038	.86451	.00005	.00161	.00288	-.00081

RUN NO. 18/ 0 RN/L = 11.43 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	Q (PSF)	CL	CD	L/D	CAC	CFB	CPBM	CPSC
11.662	-2.774	622.38023	-1.16253	.05293	-3.07078	.01346	-2.1463	-.29331	-.23947
11.655	-.429	621.68072	-.05998	.04840	-1.23925	.01371	-1.9898	-.32204	-.24403
11.634	1.865	620.55224	.04262	.04804	.87732	.01275	-1.8770	-.30531	-.22694
11.649	4.252	622.25123	.14962	.05114	2.92541	.01353	-2.0206	-.29918	-.24083
11.647	6.418	622.67037	.24525	.05701	4.30181	.01325	-1.8771	-.30521	-.23574
11.642	8.762	621.97364	.35486	.06948	5.10771	.01366	-1.9662	-.28682	-.24311
11.639	11.133	621.83901	.45483	.08868	5.24190	.01421	-2.1211	-.33774	-.25287
11.635	13.432	624.36717	.57113	.11444	4.99071	.01368	-2.1542	-.34537	-.24697
11.618	15.679	620.70632	.68593	.15079	4.54889	.01368	-2.1556	-.29754	-.24343
11.636	18.092	622.82317	.81847	.20642	3.96511	.01529	-2.3206	-.34770	-.27207
11.624	20.502	621.98129	.94699	.28155	3.36352	.01550	-2.5667	-.34376	-.27577
11.585	22.795	618.46357	1.05706	.36281	2.91349	.01764	-3.0152	-.38868	-.31387
11.559	25.174	615.92356	1.15808	.46419	2.49486	.02063	-3.8206	-.43193	-.36713
11.502	27.454	609.58816	1.23884	.56497	2.19276	.02240	-4.1404	-.44919	-.39853
11.434	29.652	602.67484	1.23797	.63362	1.95381	.02513	-4.4366	-.53820	-.44715
GRADIENT		-.06305	.04446	-.00024	.86058	-.00003	.00208	-.00004	.00054

DATE 19 NOV 75

TABULATED SOURCE DATA - QM17

PAGE 17

QM17,LTPT138,CRB 3, (B19C7F5M4) (M107E23) (VTR5)

(RPP008) (30 AUG 75)

REFERENCE DATA

SRDP = 87.1560 94.1IN. XMRP = 12.5770 INCHES
 LPEF = 19.3545 INCHES YMRP = .0000 INCHES
 SPDF = 14.0302 ZMRP = 6.0000 INCHES
 SCALE = .0130 SCALE

BETA = .000 MACH = .293
 ELEVTR = .000 AILRON = .000
 RUDDER = .000 90FLAP = -14.250
 SPOBRK = 54.920

PARAMETRIC DATA

RUN NO. 20/ 0 RN/L = 4.57 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB
4.378	-2.471	.00731	-21328	.06699	.06986	-.00915	-.00025	.00027	.05246
4.387	-.424	.00741	-10667	.09073	.06986	-.00824	-.00024	.00017	.05322
4.384	1.727	.00700	-01218	.06877	.07017	-.00912	-.00002	-.00013	.05115
4.387	3.836	.00737	.08096	.08240	.07087	-.00990	.00014	-.00005	.05077
4.376	6.023	.00679	.16691	.07245	.07068	-.00932	.00020	.00001	.04985
4.373	8.185	.00713	.26971	.05835	.06829	-.00970	.00015	-.00018	.04771
4.384	10.472	.00619	.39834	.04189	.06998	-.00886	.00037	-.00064	.04725
4.383	12.516	.00614	.49345	.02600	.07229	-.00875	.00032	-.00088	.04833
4.370	14.769	.00591	.61028	.00733	.07168	-.00939	.00069	-.00092	.04981
4.363	16.880	.00530	.72733	-.00935	.06850	-.00820	.00109	-.00224	.05121
4.382	19.139	.00498	.85945	-.02619	.06393	-.00750	.00038	-.00261	.05286
4.375	21.312	.00484	.98926	-.03749	.05549	-.00280	-.00218	-.00170	.05574
4.388	23.495	.00371	1.12416	-.03665	.04657	-.00383	-.00503	-.00042	.06302
4.379	25.683	.00457	1.23105	-.03618	.04650	.00314	-.00538	.00413	.06582
4.371	27.781	.00045	1.27758	-.02574	.03969	.00887	-.00531	-.00130	.07007
GRADIENT		-.00001	.04511	-.00071	.00019	-.00010	.00006	-.00006	-.00033

RUN NO. 21/ 0 RN/L = 9.79 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB
9.983	-2.802	.01004	-.22373	.08704	.07417	-.00505	-.00048	.00056	.05404
9.825	-.539	.00946	-.12418	.09032	.07411	-.00487	-.00047	.00049	.05395
9.840	1.776	.00934	-.02115	.08905	.07483	-.00529	-.00025	.00035	.05267
9.832	4.070	.00881	.06571	.08203	.07368	-.00529	-.00002	.00029	.05171
9.830	6.331	.00902	.16680	.07122	.07390	-.00552	.00003	.00026	.05020
9.837	8.620	.00781	.29428	.05619	.07353	-.00487	.00007	.00004	.04936
9.807	10.936	.00689	.40244	.03891	.07438	-.00460	.00021	-.00026	.05045
9.821	13.217	.00579	.51228	.01967	.07573	-.00435	.00044	-.00042	.05141
9.822	15.490	.00629	.62953	-.00010	.07479	-.00492	.00057	-.00051	.05295
9.814	17.668	.00548	.76766	-.01932	.06472	-.00530	.00008	-.00036	.05473
9.789	20.239	.00308	.90707	-.03353	.05742	.00077	-.00152	-.00171	.05462
9.812	22.541	.00240	1.03752	-.04146	.04763	.00320	-.00264	-.00191	.05894
9.802	24.854	.00044	1.16612	-.04295	.04107	.00363	-.00218	-.00376	.06380
9.788	27.197	-.00344	1.28073	-.04138	.03970	.00426	-.00111	-.00582	.07132
9.786	29.250	-.00229	1.31148	-.03309	.06426	.00088	.00036	-.00823	.07849
GRADIENT		-.00016	.04498	-.00071	-.00004	-.00005	.00007	-.00004	-.00036

OA17, LPT1132, ORB 3, (B19C7F5M4) (W10TE23) (V7R5)

(ZPPD08) (30 AUG 73)

REFERENCE DATA

SREF = 87.1960 SQ. IN. XMRP = 12.5770 INCHES
 LREF = 19.3545 INCHES YMRP = .0000 INCHES
 BREF = 14.0502 ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .253
 ELEVTR = .000 AILRON = .000
 RUDDER = .000 BDFLAP = -14.250
 SPDRK = 54.920

RUN NO. 20/ 0 RN/L = 4.57 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	Q (PSF)	CL	CD	L/D	CAC	CFB	CPBM	CPSC
4.578	-2.871	265.04908	-2.20899	.09684	-2.15817	.01678	-2.26859	-3.8447	-2.9861
4.587	-2.424	266.17060	-1.10600	.09152	-1.15821	.01706	-2.26135	-4.0471	-3.0363
4.584	1.727	265.89259	-0.01485	.08836	-1.6801	.01664	-2.26231	-3.6969	-2.9614
4.587	3.836	266.17375	.07528	.08764	.85902	.01640	-2.25780	-3.7693	-2.9177
4.576	6.023	264.77701	.17827	.09166	1.94490	.01634	-2.25985	-3.6563	-2.9075
4.573	8.185	265.32618	.27845	.09901	2.81243	.01567	-2.24910	-3.2984	-2.7875
4.584	10.472	266.17477	.38409	.11359	3.38146	.01569	-2.24848	-3.1776	-2.7920
4.583	12.516	266.31484	.47608	.13232	3.59795	.01590	-2.24848	-3.2925	-2.8293
4.570	14.769	264.91407	.58825	.16266	3.81644	.01634	-2.26065	-3.3672	-2.9067
4.565	16.880	264.35570	.69871	.20224	3.45485	.01665	-2.27068	-3.3734	-2.9633
4.582	19.139	266.45695	.82053	.25704	3.19220	.01710	-2.27589	-3.3567	-3.0420
4.575	21.312	265.89667	.93523	.32461	2.88109	.01793	-3.30055	-3.7252	-3.1909
4.588	23.495	267.10340	1.04558	.41456	2.52215	.02039	-3.34443	-4.2790	-3.6282
4.579	25.683	266.04387	1.12511	.50091	2.24611	.02034	-4.00013	-4.1379	-3.6201
4.571	27.781	265.48151	1.14232	.57270	1.99460	.02246	-4.3767	-4.1411	-3.9968
GRADIENT		.14428	.04357	-.00143	.46322	-.00007	.00145	.00263	.00128

RUN NO. 21/ 0 RN/L = 9.79 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	Q (PSF)	CL	CD	L/D	CAC	CFB	CPBM	CPSC
9.963	-2.802	589.54272	-2.21921	.09787	-2.23968	.01711	-2.27448	-4.1972	-3.0439
9.825	-2.539	575.12482	-1.2332	.09149	-1.34794	.01750	-2.27235	-4.1794	-3.1132
9.840	1.776	577.63913	-0.02390	.08835	-2.27049	.01688	-2.26117	-3.9839	-3.0029
9.832	4.070	576.53177	.07967	.08791	.90627	.01670	-2.25816	-3.9025	-2.9719
9.830	6.331	576.25768	.17780	.09138	1.94569	.01641	-2.26180	-3.6413	-2.9193
9.837	8.620	577.93153	.28253	.09967	2.83476	.01626	-2.25378	-3.3380	-2.8936
9.807	10.936	574.30035	.38775	.11455	3.38486	.01650	-2.25537	-3.3887	-2.9369
9.821	13.217	576.54394	.49421	.13628	3.62637	.01679	-2.26210	-3.4925	-2.9870
9.822	15.490	576.97028	.60669	.16803	3.61033	.01704	-2.26944	-3.7433	-3.0327
9.814	17.868	576.40789	.73656	.21715	3.39194	.01741	-2.27055	-3.6597	-3.0988
9.789	20.239	574.71664	.86267	.28233	3.05550	.01800	-3.30195	-3.3551	-3.2037
9.812	22.541	576.41497	.97415	.35944	2.71021	.01935	-3.32324	-3.3437	-3.4437
9.802	24.854	575.85558	1.07617	.45114	2.38543	.01998	-3.38305	-4.0669	-3.5551
9.788	27.197	575.29416	1.15805	.54855	2.11112	.02248	-4.1779	-4.1497	-4.0006
9.786	29.250	574.74375	1.16141	.61019	1.90335	.02467	-4.4010	-4.7948	-4.3894
GRADIENT		-1.58573	.04344	-.00144	.45865	-.00008	.001263	.00471	.00143

DATE 15 NOV 73

TABULATED SOURCE DATA - 0417

PAGE 19

N17.LTP1136,CRS 3,(B21C7F5M4)(M1D7E23)(V7R5)

(RPP006) (30 AUG 73)

REFERENCE DATA

9027 = 87.1560 84.1N. XMRP = 12.5770 INCHES
 LREF = 19.3545 INCHES YMRP = .0000 INCHES
 9027 = 14.0502 ZMRP = 6.0000 INCHES
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .251
 ELEVTR = .000 AIRLON = .000
 RUDDER = .000 80FLAP = -14.290
 SPDRK = 24.920

RUN NO. 22/ 0 RV/L = 2.32 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	ON	CA	CLM	CY	CYN	CBL	CAB
2.330	-2.428	.00185	-.17971	.06395	.04840	-.00453	-.00018	-.00035	.04311
2.333	-.316	.00168	-.09027	.08335	.04816	-.00456	-.00009	-.00026	.04223
2.328	1.789	.00169	.00135	.06320	.05227	-.00462	.00010	-.00001	.04161
2.326	4.024	.00209	.10316	.05845	.05232	-.00568	.00010	.00020	.04285
2.331	6.012	.00174	.20012	.04840	.05144	-.00481	.00010	.00029	.04151
2.324	8.116	.00195	.30167	.03585	.04801	-.00496	-.00010	.00005	.04016
2.329	10.266	.00175	.40791	.02054	.04218	-.00470	.00001	-.00005	.04127
2.332	12.336	.00128	.50206	.00521	.05346	-.00340	-.00001	-.00001	.04228
2.331	14.462	.00083	.61260	-.01042	.05684	-.00247	.00013	-.00078	.04320
2.331	16.590	.00175	.72987	-.02599	.05145	-.00747	.00150	-.00175	.04418
2.331	18.750	.00086	.84929	-.03967	.04877	-.00726	.00274	-.00061	.04641
2.324	20.985	.00027	1.01170	-.04785	.03377	-.00506	.00239	.00006	.04949
2.320	23.151	.00071	1.14155	-.03366	.02264	-.00901	.00391	.00627	.05696
2.326	25.261	-.00006	1.23758	-.02652	.02116	-.00136	.00087	-.00106	.06218
2.325	27.299	-.00085	1.30771	-.02577	.03995	.00115	.00074	-.00034	.06817
	GRADIENT	.00003	.04363	-.00088	.00074	-.01117	.00004	.00009	-.00006

RUN NO. 23/ 0 RV/L = 4.90 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	ON	CA	CLM	CY	CYN	CBL	CAB
4.993	-2.519	.00743	-.18562	.06281	.04664	-.01027	.00029	-.00010	.04488
4.903	-.342	.00699	-.09323	.06339	.04904	-.00963	.00027	-.00030	.04406
4.803	1.922	.00659	.00906	.06292	.05020	-.00970	.00062	-.00056	.04341
4.993	3.977	.00612	.17723	.05691	.04913	-.00935	.00073	-.00047	.04271
4.800	6.150	.00647	.20995	.04681	.04903	-.00968	.00077	-.00022	.04212
4.802	8.308	.00621	.30809	.03362	.04919	-.00978	.00069	-.00064	.04268
4.987	10.462	.00536	.41176	.01871	.05024	-.00951	.00076	-.00073	.04323
4.993	12.680	.00560	.51523	.00140	.05192	-.00912	.00090	-.00107	.04492
4.967	14.834	.00440	.62560	-.01687	.05122	-.00761	.00093	-.00149	.04655
4.995	17.004	.00379	.74711	-.03191	.04723	-.00696	.00101	-.00286	.04654
4.999	19.205	.00376	.87108	-.04709	.04196	-.00611	.00094	-.00227	.04790
4.805	21.435	.00265	1.00896	-.05833	.03537	-.00502	-.00056	-.00069	.05125
4.584	23.565	.00143	1.14090	-.05990	.03225	-.00302	-.00060	-.00030	.05704
4.586	25.777	.00118	1.26029	-.05520	.02303	-.00094	-.00115	-.00073	.06232
4.599	27.936	-.00009	1.32987	-.04160	.03559	.00039	-.00252	-.00459	.06968
	GRADIENT	-.00020	.04511	-.00062	.00010	.00012	.00008	-.00006	-.00032

DATE 15 NOV 73

TABULATED SOURCE DATA - 0A17

PAGE 20

0A17,LTPT130,ORB 3, (B21CTF5M4) (M107E23) (V7R3)

(RPP009) (30 AUG 73)

REFERENCE DATA

SREF = 87.1560 SQ.IN. YMRP = 12.5770 INCHES
 LREF = 19.3545 INCHES YMRP = .0000 INCHES
 BREF = 14.0502 ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .251
 ELEVR = .000 AILRN = .000
 RUDDER = .000 BDFLAP = -14.250
 SPDBRK = 24.920

RUN NO. 24/ 0 RN/L = 9.82 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB
9.933	-2.736	.01090	-.19985	.06165	.03156	-.00650	.00000	.00005	.04585
9.901	-.419	.01221	-.09640	.06441	.05159	-.00773	.00019	-.00008	.04667
9.937	1.870	.01076	.00841	.06263	.05100	-.00711	.00035	-.00012	.04582
9.933	4.168	.01032	.11173	.05615	.05082	-.00687	.00038	-.00025	.04552
9.912	6.455	.01022	.21593	.04499	.05052	-.00693	.00041	-.00030	.04617
9.873	8.714	.00871	.32145	.03078	.05106	-.00629	.00054	-.00043	.04587
9.882	11.017	.00721	.42949	.01413	.05240	-.00542	.00055	-.00066	.04433
9.881	13.314	.00659	.53986	-.00369	.05367	-.00493	.00048	-.00115	.04694
9.865	15.644	.00522	.66757	-.02125	.05016	-.00353	.00015	-.00100	.04828
9.890	18.006	.00508	.81192	-.03682	.04115	-.00363	.00025	-.00136	.04095
9.903	20.497	.00458	.96167	-.04973	.03430	-.00266	.00013	-.00169	.05209
9.858	22.694	.00332	1.08902	-.05586	.02942	.00153	-.00133	-.00487	.05307
9.872	25.116	.00148	1.21076	-.05309	.02771	.00143	-.00133	-.00630	.06163
9.882	27.401	.00070	1.33177	-.05412	.02508	.00117	-.00091	-.00046	.06930
9.819	29.487	-.01411	1.34045	-.04425	.05248	.01871	-.00511	-.00627	.07821
GRADIENT		-.00014	.04520	-.00079	-.00012	-.00001	.00006	-.00004	.00505

RUN NO. 25/ 0 RN/L = 11.51 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB
11.630	-2.784	.01204	-.20566	.06093	.05259	-.00649	-.00013	.00000	.04605
11.636	-.412	.01196	-.09832	.06378	.05177	-.00669	.00001	-.00006	.04453
11.622	1.887	.01130	.00742	.06222	.05140	-.00661	.00016	-.00016	.04737
11.606	4.199	.01080	.11106	.05548	.05103	-.00634	.00016	-.000124	.04638
11.608	6.495	.01044	.21511	.04415	.05112	-.00632	.00026	-.00023	.04555
11.613	8.799	.00901	.32129	.02962	.05227	-.00554	.00025	-.00049	.04540
11.617	11.125	.00777	.43117	.01300	.05303	-.00495	.00031	-.00078	.04644
11.599	13.456	.00697	.54727	-.00544	.05327	-.00460	.00035	-.00120	.04731
11.600	15.729	.00618	.66333	-.02239	.05174	-.00399	.00025	-.00097	.04843
11.575	18.188	.00437	.82207	-.03833	.04110	-.00236	.00010	-.00160	.04860
11.572	20.583	.00441	.96539	-.04955	.03372	-.00117	-.00135	-.00129	.05134
11.593	22.937	.00060	1.10283	-.05590	.02399	.00510	-.00304	-.00382	.05532
11.569	25.264	.00177	1.20762	-.05474	.03228	.00345	-.00252	-.00199	.06156
11.512	27.493	-.00377	1.31160	-.05124	.03201	.00918	-.00383	.00010	.06959
11.513	29.627	-.02158	1.30545	-.03967	.06240	.02622	-.00710	-.00947	.07937
GRADIENT		-.00019	.04542	-.00077	-.00022	.00002	.00004	-.00004	.00016

REFERENCE DATA

SREF = 97.1560 94.1N. XMRP = 12.5770 INCHES

LREF = 19.3545 INCHES YMRP = .0000 INCHES

BREF = 14.0502 ZMRP = 6.0000 INCHES

SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .251

ELEVTR = .000 AILRON = .000

RUDDER = .000 BOFLAP = -14.250

SPDRK = 24.920

RUN NO. 22/ 0 RN/L = 2.32 GRADIENT INTERVAL = -5.00/ 5.00									
RN/L	ALPHA	Q (PSF)	CL	CD	L/D	CAC	CPB	CPBM	CPSC
2.330	-2.426	132.34091	-.17684	.07150	-2.47343	.01401	-.22131	-.30792	-.24934
2.333	-3.10	132.62120	-.08990	.06595	-1.36529	.01385	-.21745	-.30082	-.24643
2.328	1.789	132.20076	-.00062	.06322	-.00986	.01353	-.21063	-.28949	-.24074
2.326	4.024	132.05962	.09680	.06555	1.50735	.01389	-.21530	-.28980	-.24714
2.323	6.012	131.77930	.19395	.06909	2.80717	.01353	-.21028	-.27672	-.24082
2.331	8.116	132.62120	.29359	.07808	3.76000	.01306	-.20826	-.25590	-.23246
2.324	10.266	131.92045	.39772	.09291	4.26082	.01354	-.21004	-.26066	-.24088
2.329	12.336	132.48106	.48955	.11235	4.35550	.01394	-.21389	-.27316	-.24802
2.332	14.482	132.76233	.59574	.14310	4.16304	.01433	-.22733	-.28340	-.25492
2.331	16.590	132.62318	.70691	.18348	3.85278	.01461	-.23601	-.28634	-.25988
2.331	18.730	132.76332	.81705	.23514	3.47469	.01500	-.24383	-.31039	-.26699
2.324	20.985	132.06257	.96174	.31764	3.02779	.01611	-.27977	-.33504	-.28667
2.320	23.151	131.64109	1.06286	.41785	2.54360	.01857	-.31151	-.38092	-.33040
2.326	25.261	132.34190	1.13038	.50406	2.24256	.01914	-.38264	-.38570	-.34059
2.325	27.299	132.06355	1.17388	.57686	2.03495	.02106	-.40321	-.41920	-.37472
GRADIENT		-.05920	.04271	-.00094	.62020	-.00003	.00114	.00305	.00056

RUN NO. 23/ 0 RN/L = 4.60 GRADIENT INTERVAL = -5.00/ 5.00									
RN/L	ALPHA	Q (PSF)	CL	CD	L/D	CAC	CPB	CPBM	CPSC
4.593	-2.519	264.88553	-.16288	.07092	-2.57875	.01454	-.22762	-.31910	-.25868
4.603	-3.342	265.86897	-.09284	.06594	-1.40789	.01433	-.22712	-.30537	-.25501
4.593	1.922	266.56708	.00695	.06318	.10997	.01424	-.21688	-.30068	-.25333
4.593	3.977	265.16667	.10302	.06421	1.60435	.01393	-.21513	-.29206	-.24786
4.600	6.150	265.72996	.20372	.06904	2.95095	.01381	-.20907	-.27802	-.24581
4.602	8.308	266.28806	.30000	.07779	3.95670	.01394	-.22202	-.27998	-.24800
4.567	10.462	264.74752	.40132	.09317	4.30946	.01424	-.21835	-.28142	-.25335
4.593	12.660	265.30878	.50240	.11429	4.39600	.01457	-.22229	-.29882	-.25923
4.597	14.834	264.74854	.60927	.14391	4.23374	.01510	-.22869	-.32462	-.26862
4.595	17.004	265.87001	.72378	.18797	3.85052	.01525	-.24224	-.32587	-.27131
4.599	19.205	266.29013	.83809	.24207	3.46217	.01560	-.25887	-.32371	-.27753
4.605	21.435	266.99028	.96049	.31442	3.05480	.01663	-.28420	-.35036	-.29591
4.594	23.565	265.17180	1.06971	.40122	2.66615	.01882	-.32958	-.35029	-.33491
4.566	25.777	265.59197	1.15888	.49836	2.32538	.01925	-.38057	-.38006	-.34321
4.599	27.936	266.99444	1.19440	.56627	2.03728	.02175	-.43269	-.40778	-.36700
GRADIENT		.07505	.04400	-.00106	.64630	-.00009	.00220	.00394	.00156

OA17,LTPT138,ORB 3,(B21CTFSM4)(W107E23)(V7R5)

(ZPP009) (30 AUG 73)

REFERENCE DATA

SREF = 87.1560 SQ. IN. XMRP = 12.5770 INCHES
 LREF = 19.3545 INCHES YMRP = .0000 INCHES
 BREF = 14.0502 INCHES ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .251
 ELEVR = .000 AILRON = .000
 RUDDER = .000 BOFLAP = -14.250
 SPDRK = 24.920

RUN NO. 24/ 0 RN/L = 9.82 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	Q (PSF)	CL	CD	L/D	CAC	CPB	CPBM	CPSC
9.933	-2.736	576.6961	-.19658	.07111	-2.76562	.01489	-.23492	-.32350	-.26495
9.901	-4.419	574.03316	-.79593	.06511	-1.473	.01530	-.24073	-.33020	-.27224
9.937	1.870	578.37925	.0636	.06287	.10119	.01498	-.23612	-.34146	-.26653
9.953	4.168	581.04571	..7735	.06412	1.67437	.01508	-.22168	-.32141	-.26834
9.912	6.455	577.12049	.20550	.06898	3.03705	.01466	-.22537	-.31984	-.26085
9.873	8.714	573.76989	.31317	.07913	3.95652	.01464	-.22503	-.29480	-.26056
9.882	11.017	574.75874	.41881	.09595	4.36370	.01463	-.22871	-.29137	-.26025
9.881	13.314	574.89087	.52620	.12073	4.35833	.01534	-.22753	-.33434	-.27295
9.865	15.644	573.35845	.64857	.15955	4.06512	.01530	-.24311	-.33760	-.27220
9.890	18.008	576.58125	.78353	.21598	3.62773	.01606	-.25925	-.34020	-.28575
9.903	20.497	578.54771	.91820	.29015	3.16460	.01694	-.28175	-.34976	-.30145
9.858	22.694	573.78580	1.02625	.36862	2.78401	.01738	-.33226	-.34238	-.30932
9.872	25.116	575.89170	1.11882	.46584	2.40172	.01956	-.36276	-.36752	-.34807
9.862	27.401	577.29586	1.20727	.56485	2.13734	.02184	-.40825	-.42288	-.38871
9.819	29.487	569.73311	1.18860	.62128	1.91315	.02478	-.48645	-.46383	-.44090
GRADIENT		.75469	.04410	-.00101	.64748	.00001	.00192	-.00022	-.00020

RUN NO. 25/ 0 RN/L = 11.51 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	Q (PSF)	CL	CD	L/D	CAC	CPB	CPBM	CPSC
11.630	-2.784	622.70211	-.20246	.07085	-2.83772	.01496	-.22461	-.32796	-.26612
11.636	-4.412	623.97167	-.09786	.06448	-1.51758	.01465	-.22936	-.30227	-.26066
11.622	1.887	622.70570	.00337	.06243	.06603	.01550	-.23389	-.31861	-.27577
11.606	4.199	621.15867	.10670	.06346	1.68132	.01479	-.23048	-.31512	-.26316
11.608	6.495	622.29894	.20873	.06820	3.06054	.01481	-.21548	-.29584	-.26348
11.613	8.799	622.85656	.31298	.07842	3.99119	.01453	-.21615	-.29100	-.25859
11.617	11.125	624.12832	.42055	.09595	4.38804	.01470	-.23181	-.29009	-.25166
11.599	13.456	622.86086	.53351	.12206	4.37087	.01563	-.23805	-.30680	-.27810
11.600	15.729	623.28980	.64456	.15827	4.07245	.01591	-.23937	-.31781	-.28313
11.575	18.188	621.45603	.79296	.22018	3.60134	.01620	-.26413	-.31992	-.28827
11.572	20.583	621.18286	.92118	.29302	3.14377	.01707	-.28397	-.34535	-.30377
11.593	22.937	623.85885	1.03742	.37831	2.74225	.01762	-.33583	-.35669	-.31351
11.569	25.264	621.74910	1.11547	.46591	2.39419	.01986	-.38111	-.38617	-.35339
11.512	27.493	616.11653	1.18713	.56004	2.11973	.02183	-.41749	-.43347	-.38839
11.513	29.627	616.26229	1.15439	.61087	1.88975	.02587	-.45842	-.52714	-.46027
GRADIENT		-.25169	.04434	-.00105	.65450	.00001	-.00096	.00098	-.00026



C-9

DATE 15 NOV 73

TABULATED SOURCE DATA - QAI17

PAGE 23

QAI17, LPT1138, ORB 3, (B21C775M4) (M107223) (VTR5)

(RPP010) (30 AUG 73)

REFERENCE DATA

SREF = 87.1960 IN. XREF = 12.5770 INCHES
 LREF = 19.3545 INCHES YREF = .0070 INCHES
 SREF = 14.0902 ZREF = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .254
 ELEVTR = .000 AIRLON = .000
 RUDDER = .000 BOPLAP = .000
 SPDRNK = 24.920

RUN NO. 26/ 0 RV/L = 4.60 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CEB	CAB
4.991	-2.478	.00682	-.15541	.05715	.03071	-.00959	.00040	-.00021	.04376
4.982	-.299	.00721	-.05427	.05958	.02993	-.01049	.00058	-.00035	.04197
4.998	1.887	.00890	.04336	.05770	.03054	-.01030	.00073	-.00060	.04264
4.981	4.012	.00820	.14022	.05128	.03124	-.00989	.00066	-.00042	.04231
4.977	6.189	.00878	.24034	.04095	.02898	-.01053	.00068	-.00031	.04291
4.980	8.362	.00838	.34961	.02772	.02751	-.01043	.00111	-.00074	.04337
4.983	10.606	.00856	.45716	.01213	.02668	-.01079	.00116	-.00098	.04378
4.982	12.747	.00875	.55668	-.00469	.03076	-.00997	.00127	-.00136	.04605
4.987	14.832	.00845	.66328	-.02041	.03103	-.00919	.00146	-.00163	.04695
4.957	17.082	.00843	.79574	-.03710	.02502	-.00783	.00174	-.00292	.04774
4.982	19.232	.00861	.91922	-.05152	.02112	-.00679	.00100	-.00263	.04908
4.969	21.445	.00814	1.04675	-.06116	.01401	-.00012	-.00173	-.00193	.05077
4.980	23.632	.00107	1.18475	-.05907	.00843	.00210	-.00201	-.00185	.05644
4.947	25.830	.00022	1.30042	-.05195	-.00012	.00398	-.00238	-.00045	.06411
4.802	28.034	-.00366	1.37021	-.04110	.01130	.01109	-.00326	-.00421	.07291
GRADIENT		-.00007	.04548	-.00069	.00010	-.00003	.00007	-.00004	-.00003

RUN NO. 26/ 0 RV/L = 9.67 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CEB	CAB
9.934	-2.829	.01190	-.16998	.05585	.03336	-.00744	.00012	-.00025	.04355
9.971	-.320	.01128	-.08431	.05835	.03226	-.00716	.00022	-.00036	.04537
9.957	1.958	.01152	.04005	.05646	.03149	-.00773	.00044	-.00048	.04775
9.957	4.293	.01085	.14253	.04947	.03186	-.00780	.00034	-.00056	.04587
9.936	6.485	.01068	.24468	.03695	.03114	-.00795	.00075	-.00060	.04365
9.955	8.784	.00981	.35164	.02431	.03044	-.00759	.00060	-.00061	.04540
9.959	11.120	.00967	.46412	.00747	.03231	-.00697	.00094	-.00116	.04716
9.911	13.466	.00895	.57897	-.01087	.03408	-.00572	.00060	-.00152	.04875
9.902	15.749	.00817	.69911	-.02803	.03070	-.00485	.00045	-.00133	.05066
9.899	18.182	.00844	.85106	-.04340	.02873	-.00251	-.00029	-.00233	.05003
9.884	20.554	.00357	.99075	-.05490	.01372	.00093	-.00178	-.00239	.05400
9.874	22.850	-.00011	1.12623	-.05919	.00395	.01473	-.00260	-.00460	.05764
9.845	25.108	.00006	1.24919	-.05666	.00129	.00375	-.00212	-.00476	.06296
9.743	27.412	-.00009	1.36282	-.05530	.00073	.00264	-.00144	-.00144	.07047
9.669	29.471	-.00055	1.36547	-.04615	.02484	.01175	-.00322	-.00491	.08019
GRADIENT		-.00013	.04521	-.00092	-.00023	-.00003	.00006	-.00003	.00040

CM17,LTPT138,ORB 3,(521CTF5M4)(N07E23)(V7R5)

(ZPP010) (30 AUG 73)

REFERENCE DATA

REF = 87.1500 IN. XREF = 12.5770 INCHES
 LREF = 19.3545 INCHES YREF = .0000 INCHES
 BREF = 14.0302 ZREF = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .854
 ELEVTR = .000 AIRCON = .000
 RUOYER = .000 BOFLAP = .000
 SPDBRK = 24.920

RUN NO. 28/ 0 RN/L = 4.60 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	Q (PSF)	CL	CD	L/D	CAC	CPB	CPBM	CPSC
4.591	-2.478	265.58068	-.15279	.08382	-2.39405	.01330	-.21616	-.29202	-.23660
4.582	-.299	265.30981	-.05396	.05866	-.90141	.01336	-.21247	-.26953	-.23604
4.596	1.887	266.85130	.04144	.09910	.70115	.01361	-.21581	-.29037	-.24225
4.591	4.012	265.31269	.13629	.06096	2.23564	.01306	-.20550	-.21579	-.23243
4.577	6.189	265.03276	.23453	.06663	3.51998	.01323	-.19516	-.26719	-.23540
4.580	8.362	265.45397	.34186	.07827	4.36793	.01361	-.20606	-.26852	-.24216
4.593	10.606	266.01923	.44712	.09606	4.65454	.01376	-.20663	-.26965	-.24485
4.582	12.747	266.01624	.54398	.11826	4.59972	.01395	-.19711	-.26735	-.24822
4.567	14.832	264.19944	.64640	.15006	4.30776	.01486	-.21123	-.30750	-.26474
4.557	17.082	263.35585	.77154	.19827	3.69127	.01475	-.23034	-.32456	-.28242
4.562	19.252	264.05753	.88480	.25445	3.47725	.01559	-.25201	-.32525	-.27592
4.569	21.445	264.75875	.99664	.32578	3.05926	.01626	-.27643	-.33663	-.26972
4.560	23.652	263.77917	1.10893	.42119	2.63284	.01822	-.34545	-.37207	-.32418
4.547	25.830	262.10362	1.19312	.51985	2.29514	.02021	-.40618	-.41061	-.35956
4.602	28.034	266.96512	1.22876	.60771	2.02194	.02369	-.42663	-.47674	-.42154
GRADIENT		.03438	.04445	-.00043	.71532	-.00002	.00132	.00090	.00037

RUN NO. 28/ 0 RN/L = 9.67 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	Q (PSF)	CL	CD	L/D	CAC	CPB	CPBM	CPSC
9.934	-2.629	573.92892	-.16722	.06358	-2.62988	.01394	-.23609	-.33314	-.24812
9.971	-.320	578.96314	-.06396	.05671	-1.08981	.01436	-.22102	-.34521	-.25547
9.957	1.956	577.58410	.03809	.03779	.65916	.01541	-.20389	-.33987	-.27423
9.957	4.293	577.86633	.13843	.06000	2.30692	.01492	-.21965	-.32307	-.25631
9.956	6.485	576.33203	.23873	.06624	3.60402	.01393	-.21929	-.32346	-.24082
9.955	8.764	579.27442	.34363	.07761	4.43051	.01454	-.19947	-.31354	-.25668
9.959	11.120	579.57976	.45397	.09684	4.68773	.01389	-.21306	-.31904	-.24708
9.911	13.466	576.78026	.56554	.12444	4.54465	.01539	-.20404	-.34068	-.27363
9.902	15.749	576.50296	.67047	.16278	4.18028	.01527	-.21763	-.34276	-.27171
9.999	18.162	576.09545	.77219	.22214	3.66988	.01611	-.26240	-.34009	-.26667
9.884	20.454	575.24362	.84686	.29644	3.10444	.01763	-.28466	-.36356	-.31366
9.874	22.850	574.27136	1.06063	.36280	2.77126	.01901	-.32061	-.38751	-.33628
9.845	25.106	571.46783	1.15519	.47877	2.41284	.02111	-.36953	-.41497	-.37571
9.743	27.412	559.69537	1.23508	.57825	2.13369	.02367	-.42537	-.45436	-.42123
9.669	29.471	551.42167	1.22890	.64146	1.91379	.02695	-.43184	-.53528	-.47238
GRADIENT		.43206	.04422	-.00050	.71856	.00012	.00287	.00155	-.00213

DATE 15 NOV 75

TABULATED SOURCE DATA - 0417

PAGE 23

0417, LPT1139, ORS 3, (B21CTF344) (M10723) (VTR5)

(RPP011) (30 AUG 75)

REFERENCE DATA

SREF = 87.1960 84.1M. XREF = 12.3770 INCHES
 LREF = 19.3545 INCHES YREF = .0000 INCHES
 BREF = 14.0302 ZREF = 6.0000 INCHES
 SCALE = .0190 SCALE

RUN NO. 32/ 0 RV/L = 2.36 GRADIENT INTERVAL = -5.00/ 5.00
 BETA = .000 MACH = .247
 ELEVTR = .000 AIRRON = .000
 RUDDER = .000 BOP/LAP = .000
 SPDRK = .000

PARAMETRIC DATA

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB
2.365	-2.467	.00201	-1.6086	.04896	.02434	-.00559	.00017	-.00039	.03903
2.371	-.297	.00089	-.03227	.05108	.02514	-.00320	.00049	-.00042	.03987
2.371	1.932	.00172	.03214	.04848	.02690	-.00567	.00066	-.00030	.03923
2.355	4.196	.00111	.14395	.04243	.02607	-.00433	.00078	.00002	.03975
2.350	6.255	.00035	.24137	.03304	.02464	-.00251	.00058	.00010	.04008
2.357	8.086	.00109	.33253	.02150	.02174	-.00411	.00068	-.00023	.03970
2.366	10.274	.00043	.43176	.00864	.02463	-.00236	.00068	-.00093	.04080
2.370	12.361	.00001	.53440	-.00810	.02513	-.00109	.00059	-.00126	.04215
2.375	14.534	.00001	.64086	-.02470	.02766	-.00162	.00089	-.00118	.04289
2.366	16.725	-.00080	.76076	-.04030	.02375	-.00278	.00275	-.00274	.04513
2.360	18.790	.00014	.88975	-.06129	.01732	-.00526	.00273	-.00214	.04566
2.353	21.007	-.00116	1.03640	-.05972	.00329	.00037	.00160	-.00065	.04939
2.362	23.034	-.00045	1.16069	-.04382	-.00867	-.00631	.00434	.00697	.05722
2.359	25.236	-.00148	1.28291	-.03287	-.00924	.00927	-.00280	.00311	.06249
2.357	27.162	-.00414	1.30717	-.02977	.01702	.01959	-.00421	-.00475	.06884
GRADIENT		-.00008	.04545	-.00099	.00031	.00206	.00009	.00206	.00007

RUN NO. 29/ 0 RV/L = 4.55 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB
4.560	-2.511	.00607	-1.12255	.04742	.02232	-.00968	.00097	-.00076	.04009
4.564	-.296	.00660	-.04751	.05002	.02150	-.01051	.00106	-.00082	.04221
4.553	1.875	.00607	.04621	.04762	.02209	-.01018	.00124	-.00116	.04242
4.554	4.142	.00607	.15109	.04081	.02231	-.01026	.00126	-.00104	.04294
4.554	6.230	.00543	.25106	.03107	.02052	-.00917	.00113	-.00097	.04185
4.561	8.405	.00539	.35467	.01772	.01911	-.00952	.00135	-.00131	.04139
4.559	10.526	.00555	.45509	.00276	.01912	-.00973	.00133	-.00195	.04368
4.555	12.669	.00445	.55577	-.01372	.02196	-.00660	.00149	-.00194	.04617
4.572	14.862	.00445	.66746	-.03086	.02175	-.00670	.00155	-.00229	.04679
4.551	17.006	.00373	.79212	-.04613	.01676	-.00877	.00207	-.00326	.04764
4.547	19.274	.00254	.92026	-.06092	.01368	-.00963	.00119	-.00315	.04819
4.550	21.603	.00173	1.06802	-.06872	.01272	-.00929	-.00118	-.00296	.05125
4.550	23.669	.00179	1.19675	-.06417	-.01024	.00110	-.00201	.00035	.05565
4.561	25.902	.00286	1.32768	-.05819	-.01566	-.00158	-.00139	.00422	.06353
4.549	27.965	-.00261	1.37020	-.03259	.00150	.00552	-.00097	-.00376	.06906
GRADIENT		-.00002	.04540	-.00101	.00003	-.00006	.00005	-.00005	.00040

0A17,LTPT138,ORB 3,(BE1CTF5M4) (M07ZE3) (V7R5)

(RPP011) (30 AUG 73)

REFERENCE DATA

BREF = 87.1960 IN. WARP = 12.5770 INCHES
 LREF = 19.3545 INCHES YARP = .0000 INCHES
 BREF = 14.0502 ZARP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .247
 ELEVR = .000 AIRLON = .000
 RUDDER = .000 BOFLAP = .000
 SPDRK = .000

RUN NO. 30/ 0 RN/L = 9.55 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	ON	CA	CLM	CY	CYN	CBL	CAB
9.602	-2.594	.01242	-1.19670	.04589	.02310	-.00908	.00046	-.00076	.04422
9.605	-.249	.01193	-.05312	.04872	.02232	-.07882	.00090	-.00084	.04308
9.795	2.058	.01139	.05072	.04667	.02176	-.00872	.00102	-.00091	.04266
9.826	4.208	.01069	.15133	.04048	.02154	-.00832	.00105	-.00593	.04431
9.830	6.616	.01045	.26240	.02856	.02038	-.00842	.00118	-.00096	.04309
9.823	8.676	.00945	.36630	.01434	.02120	-.00778	.00115	-.00115	.04431
9.832	11.053	.00856	.46757	-.00114	.02212	-.00756	.00131	-.00148	.04739
9.795	13.399	.00792	.56345	-.01926	.02375	-.00722	.00130	-.00189	.04748
9.795	15.833	.00857	.71348	-.03781	.02128	-.00560	.00795	-.00179	.04815
9.751	18.129	.00473	.85832	-.05284	.01192	-.00320	.00012	-.00252	.04955
9.755	20.559	.00315	.99868	-.06436	.00427	-.00045	-.00137	-.00275	.05165
9.715	22.831	-.00329	1.13460	-.06823	-.00255	.00419	-.00223	-.00508	.05707
9.679	25.149	-.00358	1.25731	-.06661	-.00761	.00338	-.00167	-.00497	.05990
9.610	27.411	-.00355	1.37169	-.06504	-.00890	.00197	-.00089	-.00266	.06933
9.552	29.477	-.00741	1.39664	-.05532	.01318	.00985	-.00259	-.00605	.07995
GRADIENT		-.00025	.04529	-.00079	-.00023	.00010	.00003	-.00003	-.00000

RUN NO. 31/ 0 RN/L = 11.33 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	ON	CA	CLM	CY	CYN	CBL	CAB
11.510	-2.665	.01322	-1.16025	.04595	.02379	-.00894	.00066	-.00062	.04310
11.495	-.344	.01368	-.05677	.04682	.02242	-.00938	.00096	-.00075	.04234
11.516	1.972	.01299	.04723	.04649	.02305	-.00924	.00111	-.00084	.04379
11.495	4.240	.01140	.14933	.03999	.02239	-.00836	.00109	-.00087	.04413
11.507	6.644	.01123	.25990	.02814	.02214	-.00837	.00115	-.00097	.04298
11.534	8.973	.01057	.36387	.01412	.02204	-.00805	.00118	-.00116	.04510
11.480	11.222	.00942	.47804	-.00286	.02322	-.00754	.00122	-.00149	.04842
11.500	13.493	.00905	.56485	-.02024	.02348	-.00745	.00127	-.00169	.04614
11.504	15.951	.00767	.71630	-.03850	.02139	-.00620	.00100	-.00144	.04639
11.519	18.241	.00547	.85687	-.03268	.01178	-.00380	.00036	-.00242	.04819
11.487	20.596	.00460	.99982	-.06388	.00416	-.00045	-.00125	-.00233	.05174
11.488	22.987	-.00042	1.13582	-.06927	-.00190	.00376	-.00307	-.00471	.05569
11.467	25.397	.00348	1.26401	-.06709	-.00336	.00112	-.00180	-.00328	.06086
11.372	27.591	.00137	1.36151	-.06419	-.00364	.00229	-.000175	-.00011	.06828
11.332	29.676	-.00826	1.36314	-.05442	.01546	.01267	-.00426	-.00373	.08115
GRADIENT		-.00027	.04484	-.00085	-.00016	.00006	.00004	-.00004	.00000

DATE 15 NOV 73

TABULATED SOURCE DATA - 0417

PAGE 27

0417, LTP1136, ORB 3, (B21C7F5M4) (N107E23) (VTR3)

(ZPP011) (30 AUG 73)

REFERENCE DATA

SREF = 87.1960 80.1M. XREF = 12.5770 INCHES
 LREF = 19.3545 INCHES YREF = .0000 INCHES
 BREF = 14.0922 ZREF = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 NACH = .247
 ELEVTR = .000 AILRON = .000
 RUDDER = .000 BOFLAP = .000
 SPDRNK = .000

RUN NO. 32/ 0 RV/L = 2.36 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	Q (PST)	CL	CD	L/D	CAC	CPB	CPBM	CPSC
2.363	-2.467	132.70294	-1.15640	.05573	-2.84228	.01233	-1.19018	-2.60221	-2.1945
2.371	-2.287	133.54778	-0.06301	.05139	-1.22815	.01248	-1.17980	-2.71175	-2.2213
2.371	1.832	133.54871	.03049	.04953	.61555	.01252	-1.17479	-2.65229	-2.2281
2.355	4.196	131.72536	.14046	.05285	2.65783	.01269	-1.16097	-2.6729	-2.2589
2.350	6.235	131.30356	.23634	.05914	3.99807	.01270	-1.16008	-2.6402	-2.2593
2.357	8.098	132.14642	.32619	.06813	4.78768	.01292	-1.16570	-2.5618	-2.2277
2.368	10.274	133.27270	.42364	.08373	5.05927	.01298	-1.17445	-2.6656	-2.3104
2.370	12.361	133.69086	.52375	.10649	4.91849	.01349	-1.16950	-2.8119	-2.4008
2.375	14.534	134.25293	.62654	.13692	4.57591	.01353	-1.18489	-2.8165	-2.4071
2.368	16.725	133.66993	.74019	.18034	4.10440	.01406	-1.20891	-2.9825	-2.5010
2.380	18.790	132.70867	.85685	.23804	3.60803	.01419	-1.23517	-3.3512	-2.5252
2.353	21.007	131.66791	.98749	.31952	3.09055	.01569	-1.26523	-3.3113	-2.7927
2.362	23.034	132.85082	1.06530	.41361	2.62269	.01814	-1.32913	-3.7752	-3.2271
2.359	25.256	132.57016	1.17449	.51722	2.27077	.02087	-1.35494	-4.0677	-3.6786
2.357	27.182	132.42982	1.17641	.57065	2.06153	.02287	-1.36796	-4.4592	-4.0701
GRADIENT		-1.13469	.04459	-.00047	.62622	.00005	.00127	-.00053	-.00090

RUN NO. 29/ 0 RV/L = 4.55 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	Q (PST)	CL	CD	L/D	CAC	CPB	CPBM	CPSC
4.580	-2.511	265.99782	-1.15033	.05406	-2.78080	.01290	-1.19584	-2.7798	-2.2951
4.584	-2.296	266.55876	-.04726	.05026	-.94022	.01324	-1.19950	-3.0450	-2.3564
4.553	1.675	265.43955	.04463	.04910	.90898	.01297	-1.20902	-2.9762	-2.3385
4.544	4.142	265.71963	.14775	.05181	2.86265	.01326	-1.18705	-2.8576	-2.3588
4.554	6.230	265.58289	.24821	.05813	4.23540	.01223	-1.19258	-2.7842	-2.1764
4.561	8.405	266.56188	.34827	.06937	5.02053	.01260	-1.19340	-2.8281	-2.2248
4.559	10.526	266.53292	.44893	.08586	5.20555	.01353	-1.19372	-2.8990	-2.4070
4.555	12.669	266.28287	.54525	.10850	5.02519	.01458	-1.21984	-3.2713	-2.5584
4.572	14.882	266.52408	.65300	.14158	4.61210	.01482	-1.20989	-3.1778	-2.6021
4.551	17.008	266.00488	.77097	.18759	4.10983	.01511	-1.23013	-3.3210	-2.6888
4.547	19.274	265.44574	.88878	.24627	3.60908	.01498	-1.24581	-3.3126	-2.8642
4.550	21.603	266.00488	1.01830	.32933	3.09205	.01620	-1.27580	-3.4526	-2.8825
4.550	23.669	265.86897	1.12368	.42247	2.65978	.01804	-1.30772	-3.7682	-3.2102
4.561	25.902	267.13543	1.21990	.52772	2.31166	.02122	-1.35799	-4.1793	-3.7783
4.549	27.965	266.15319	1.25486	.59606	2.07165	.02245	-1.40323	-4.6756	-3.9946
GRADIENT		-.08752	.04456	-.00036	.84863	.00004	.00079	-.00073	-.00085

ON17, LPT1134, ORB 3, 0821CT75M4 (N10723) (V7R5)

(ZPP011) (30 AUG 73)

REFERENCE DATA

SREF = 87.1960 98.1M. XREF = 12.5770 INCHES
 LREF = 19.3345 INCHES YREF = .0000 INCHES
 BREF = 14.0502 ZREF = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .847
 ELEVR = .000 AIRCRN = .000
 RUDDER = .000 BOFLAP = .000
 SPDRK = .000

RUN NO. 30/ 0 RN/L = 9.55 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	Q (PSF)	CL	CD	L/D	CAC	CPB	CPBM	CPSC
9.602	-2.394	574.90086	-1.1446	.05293	-2.91808	.01363	-.19697	-.32553	-.24261
9.605	-.249	575.86270	-.05291	.04695	-1.08103	.01295	-.16472	-.29374	-.23052
9.795	2.038	575.03999	.04903	.04845	1.01203	.01349	-.16978	-.30159	-.23996
9.826	4.208	578.68982	.14795	.05148	2.87417	.01364	-.20770	-.31779	-.24266
9.830	6.616	579.95468	.25736	.05982	4.39042	.01333	-.19074	-.28858	-.23723
9.823	6.876	579.39936	.35970	.07069	5.08817	.01337	-.19278	-.29853	-.23799
9.832	11.053	580.80127	.45911	.08053	5.18619	.01373	-.17054	-.30494	-.24424
9.795	13.399	576.74341	.57203	.11647	4.91159	.01416	-.19300	-.33583	-.25234
9.795	15.833	577.43797	.69673	.15829	4.40156	.01520	-.23023	-.35519	-.27050
9.751	18.129	572.11985	.83044	.21630	3.63935	.01584	-.23780	-.32422	-.28182
9.755	20.559	572.26394	.95768	.29045	3.29727	.01691	-.26156	-.34381	-.30081
9.715	22.831	567.49886	1.07218	.37736	2.84126	.01889	-.30342	-.38914	-.33806
9.679	25.149	563.15405	1.16644	.47402	2.46074	.02016	-.34952	-.39906	-.35881
9.610	27.411	555.71900	1.24763	.57375	2.17450	.02267	-.40847	-.45804	-.40331
9.552	29.477	548.56774	1.24317	.63892	1.94575	.02585	-.44297	-.53331	-.45594
GRADIENT		.45637	.04446	-.00323	.85772	.00002	-.00159	.00084	-.00040

RUN NO. 31/ 0 RN/L = 11.33 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	Q (PSF)	CL	CD	L/D	CAC	CPB	CPBM	CPSC
11.510	-2.685	622.21409	-.15795	.05325	-2.96629	.01414	-.20892	-.30986	-.25193
11.495	-.344	621.65974	-.05648	.04896	-1.13344	.01392	-.20446	-.28269	-.24776
11.516	1.972	624.05375	.04561	.04809	.94829	.01367	-.20987	-.29463	-.24674
11.495	4.240	621.52097	.14597	.05092	2.86675	.01399	-.20327	-.30164	-.24891
11.507	6.644	622.51129	.25490	.05802	4.39316	.01209	-.18467	-.28020	-.21522
11.534	8.873	625.47008	.35734	.07008	5.09916	.01369	-.21945	-.31755	-.24365
11.480	11.222	620.40091	.46946	.09022	5.20341	.01449	-.21511	-.33750	-.23777
11.500	13.493	622.65987	.57324	.11673	4.91086	.01421	-.18842	-.32616	-.25261
11.504	15.951	624.06504	.69930	.15983	4.37531	.01448	-.22041	-.35310	-.23760
11.519	18.241	625.48069	.83030	.21819	3.80539	.01529	-.22964	-.32599	-.27199
11.487	20.596	622.24285	.95839	.29192	3.28304	.01650	-.28751	-.34692	-.29354
11.488	22.987	623.22687	1.07269	.37978	2.82448	.01781	-.33044	-.36794	-.31694
11.467	25.397	620.69869	1.17063	.48151	2.43117	.01948	-.35235	-.39736	-.34664
11.372	27.591	611.67104	1.23641	.57370	2.15516	.02138	-.39551	-.45069	-.38746
11.532	29.676	607.59324	1.22866	.63751	1.92729	.02622	-.48637	-.52684	-.46658
GRADIENT		.01529	.04402	-.00034	.85102	-.00032	-.00049	.00037	-.00039

DATE 15 NOV 73

TABULATED SOURCE DATA - QAL17

PAGE 29

QAL17.LTP1138.ORG 3.(821CTF5M4) (MOTESS) (V7R5)

(RPPO12) (30 AUG 73)

REFERENCE DATA

BREF = 87.1960 SQ.IN. XMRP = 12.5770 INCHES
 LREF = 19.3945 INCHES YMRP = .0000 INCHES
 BREF = 14.0902 ZMRP = 6.0000 INCHES
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .248
 ELEVTR = -6.000 AIRRON = 6.000
 RUDEEF = .000 BOFLAP = .000
 SPDRK = .000

RUN NO. 33/ 0 RV/L = 2.37 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB
2.369	-2.434	.00470	-.21953	.05031	.05750	-.01997	.00368	.01524	.03601
2.373	-.296	.00529	-.13276	.05177	.05754	-.02069	.00393	.01519	.03657
2.372	1.730	.00532	-.03979	.05069	.06075	-.02186	.00442	.01555	.03754
2.373	3.896	.00570	.06434	.04636	.05706	-.02374	.00489	.01627	.03829
2.375	6.058	.00559	.16275	.03635	.05779	-.02410	.00525	.01694	.03927
2.374	8.071	.00592	.25317	.02517	.05602	-.02561	.00557	.01721	.04003
2.378	10.214	.00569	.36125	.01144	.05682	-.02557	.00589	.01727	.04045
2.372	12.398	.00632	.46171	-.00572	.05543	-.02790	.00613	.01661	.04264
2.367	14.542	.00653	.57196	-.02122	.05841	-.02863	.00612	.01647	.04403
2.370	16.588	.00574	.68470	-.03444	.05691	-.03009	.00806	.01341	.04570
2.369	18.796	.00533	.82267	-.04699	.05202	-.03017	.00862	.01579	.04647
2.370	20.836	.00497	.94660	-.05561	.04288	-.02419	.00578	.01675	.04678
2.364	23.037	.00504	1.09982	-.05360	.02796	-.02269	.00468	.02045	.03250
2.369	25.163	.00412	1.22551	-.03893	.01985	-.00671	.00171	.01929	.03960
2.371	27.220	-.00045	1.27078	-.03516	.04044	.00899	-.00405	.00479	.06442
GRADIENT		.00014	.04495	-.00081	.00008	-.00073	.00020	.00016	.00037

RUN NO. 34/ 0 RV/L = 4.57 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB
4.590	-2.580	.00991	-.23033	.04808	.05676	-.02009	.00395	.01503	.03768
4.580	-.276	.00989	-.12750	.05157	.05676	-.02077	.00432	.01502	.03838
4.592	1.847	.01136	-.03126	.04979	.05702	-.02361	.00487	.01492	.03879
4.587	3.972	.01104	.06595	.04461	.05692	-.02389	.00524	.01526	.04108
4.608	6.229	.01172	.17033	.03513	.05583	-.02530	.00558	.01603	.04130
4.581	8.411	.01199	.27338	.02275	.05540	-.02662	.00598	.01640	.04169
4.588	10.437	.01231	.37009	.00902	.05594	-.02781	.00639	.01639	.04348
4.582	12.680	.01299	.47776	-.00813	.05811	-.02973	.00687	.01595	.04398
4.580	14.850	.01265	.58392	-.02495	.05884	-.03026	.00734	.01610	.04557
4.585	16.909	.01238	.69692	-.03907	.05495	-.03128	.00805	.01576	.04739
4.582	19.136	.01146	.82645	-.05388	.05152	-.02836	.00704	.01606	.04703
4.582	21.565	.01084	.98035	-.06428	.04282	-.02394	.00493	.01658	.04963
4.578	23.691	.00906	1.09399	-.06779	.03768	-.02109	.00461	.01320	.05319
4.583	25.749	.00818	1.20806	-.06834	.03307	-.01568	.00221	.01321	.05825
4.580	27.923	.00371	1.29431	-.05350	.03362	-.00546	.00003	.00968	.06559
GRADIENT		.00022	.04522	-.00054	.00003	-.00065	.00020	.00003	.00048

QM17,LTPT130,OMB 3,(B21C7F9M4)(M107E23)(VTR5)

(RPP012) (30 AUG 73)

REFERENCE DATA

SR07 = 87.1560 36.1N. 308P = 12.5770 INCHES
 LR07 = 19.3545 INCHES 348P = .0000 INCHES
 BR07 = 14.0502 248P = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .248
 ELEVR = -6.000 ALLCON = 6.000
 RUDDER = .000 BOFLAP = .000
 SPOBRK = .000

RUN NO. 35/ 0 RN/L = 9.99 GRADIENT INTERVAL = -3.00/ 5.00

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB
10.043	-2.806	.02327	-.24771	.04639	.05996	-.02133	.00407	.01517	.04862
10.013	-.461	.02072	-.14064	.03033	.05875	-.02033	.00434	.01524	.04051
10.004	1.916	.02511	-.03239	.04903	.03769	-.02410	.00496	.01537	.04192
10.006	4.099	.02552	.06620	.04335	.05714	-.02501	.00533	.01567	.04179
10.026	6.467	.02595	.17394	.03302	.05650	-.02369	.00567	.01602	.04248
10.027	6.662	.02726	.27563	.02008	.05688	-.02777	.00624	.01639	.04648
10.026	10.962	.02680	.36374	.00417	.05843	-.02851	.00674	.01650	.04708
9.999	13.280	.02770	.49764	-.01363	.06063	-.03013	.00726	.01618	.04892
10.013	15.590	.02738	.61744	-.03068	.05861	-.02990	.00720	.01607	.04886
9.994	17.954	.02646	.75704	-.04588	.05105	-.02872	.00675	.01655	.04966
9.970	20.296	.02417	.89729	-.05753	.04408	-.02517	.00546	.01646	.05039
9.967	22.713	.02048	1.04362	-.06532	.03567	-.01898	.00324	.01298	.05295
9.992	25.013	.01840	1.16204	-.06450	.03041	-.01674	.00229	.01059	.05614
9.992	27.399	.01614	1.28880	-.06476	.02484	-.01499	.00246	.01104	.06668
9.992	29.530	.00469	1.32706	-.05625	.04259	-.03421	.00380	.00502	.07045
GRADIENT	.00048	.00048	.04547	-.00044	-.00041	-.00064	.00019	.00007	-.00005

RUN NO. 36/ 0 RN/L = 11.76 GRADIENT INTERVAL = -3.00/ 5.00

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB
11.891	-2.862	.02161	-.24518	.04582	.05947	-.01906	.00391	.01518	.04119
11.945	-.542	.02333	-.14205	.04948	.05639	-.02073	.00434	.01514	.04108
11.804	1.790	.02495	-.03582	.04899	.03792	-.02266	.00484	.01539	.04197
11.828	4.152	.02445	.07126	.04272	.05696	-.02310	.00527	.01571	.04166
11.824	6.369	.02499	.17220	.03294	.05691	-.02421	.00569	.01606	.04372
11.800	8.708	.02609	.26119	.01936	.03722	-.02571	.00562	.01644	.04504
11.792	10.987	.02602	.36932	.00384	.03658	-.02672	.00606	.01656	.04611
11.873	13.355	.02771	.49916	-.01465	.06014	-.02667	.00717	.01613	.04728
11.750	15.640	.02808	.62613	-.03164	.05888	-.02947	.00737	.01625	.05115
11.760	18.071	.02601	.77042	-.04656	.04981	-.02728	.00675	.01657	.05081
11.784	20.432	.02336	.91308	-.05788	.04177	-.02289	.00513	.01690	.05068
11.791	22.808	.01781	1.04824	-.06406	.03525	-.01485	.00241	.01268	.05461
11.790	25.158	.01833	1.18750	-.06295	.03215	-.01538	.00245	.01182	.05992
11.776	27.467	.01685	1.28377	-.06363	.02855	-.01425	.00223	.01172	.06517
GRADIENT	.00043	.00043	.04504	-.00042	-.00035	-.00060	.00020	.00008	.00010

ON17, LIFT1138, ORB 3, (B21CTF5M4) (M107E23) (VTR3)

(ZPP012) (30 AUG 73)

REFERENCE DATA

SRZF = 87.1560 36.1M. 10RFP = 12.5770 INCHES
 LRZF = 19.3545 INCHES YRFP = .0000 INCHES
 BRZF = 14.0502 ZRFP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .848
 ELEVTR = -6.000 ATTENOM = 6.000
 RUDDER = .000 SDFLAP = .000
 SPDRNK = .000

RUN NO. 33/ 0 RV/L = 2.37 GRADIENT INTERVAL = -3.00/ 5.00

RV/L	ALPHA	8 (P8F)	CL	CD	L/D	CAC	CPB	CPBH	CPBC
2.369	-2.434	132.26292	-2.1720	.05959	-3.64506	.01132	-.19696	-.21910	-.20141
2.373	-.296	132.62403	-.13249	.05245	-2.32593	.01133	-.19036	-.22056	-.20159
2.372	1.750	132.68469	-.04130	.04967	-.83164	.01163	-.17661	-.26606	-.20860
2.373	3.896	132.82497	.08104	.05062	1.20585	.01123	-.17302	-.24910	-.19669
2.375	6.056	133.24462	.15796	.05353	2.93154	.01150	-.17516	-.25611	-.20466
2.374	8.071	133.10590	.24713	.06047	4.06691	.01174	-.16822	-.24566	-.20866
2.378	10.214	133.66556	.35359	.07534	4.69343	.01161	-.17293	-.24684	-.21139
2.372	12.396	132.82497	.45217	.09354	4.83394	.01250	-.17231	-.26945	-.21669
2.367	14.542	132.40413	.55696	.12508	4.54160	.01316	-.16100	-.26116	-.23484
2.370	16.568	132.66563	.66604	.16246	4.09974	.01374	-.19693	-.30466	-.24452
2.369	18.756	132.54626	.79395	.22057	3.59944	.01425	-.22220	-.32182	-.25332
2.370	20.836	132.82403	.90447	.26474	3.17631	.01474	-.25047	-.33756	-.26736
2.364	23.037	131.96417	1.03309	.36106	2.71111	.01690	-.30577	-.36497	-.30067
2.369	25.163	132.66563	1.12577	.48563	2.31720	.01999	-.35572	-.39497	-.33574
2.371	27.220	132.96324	1.14614	.54999	2.08362	.02174	-.38140	-.41613	-.36669
GRADIENT	.07402	.04406	-.00141	.77312	.00000	.00000	.00406	-.00647	-.00002

RUN NO. 34/ 0 RV/L = 4.57 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	8 (P8F)	CL	CD	L/D	CAC	CPB	CPBH	CPBC
4.590	-2.580	265.42191	-.22793	.05640	-3.90260	.01177	-.20565	-.24472	-.20841
4.590	-.276	264.16470	-.12705	.05216	-2.43483	.01183	-.19258	-.24676	-.21056
4.592	1.847	265.71029	-.03264	.04676	-.67357	.01216	-.20153	-.24999	-.21667
4.597	3.972	265.56618	.08270	.04907	1.27770	.01223	-.17666	-.26941	-.21763
4.591	6.229	267.95037	.16351	.05341	3.00691	.01175	-.18024	-.25165	-.20812
4.581	8.411	265.03009	.26712	.06244	4.27774	.01155	-.27733	-.26077	-.20547
4.586	10.437	265.85135	.36233	.07592	4.77274	.01277	-.16900	-.26371	-.22723
4.582	12.680	265.15120	.46769	.09694	4.82637	.01346	-.19646	-.3097	-.23655
4.580	14.850	265.15016	.57081	.12523	4.54715	.01357	-.19507	-.32316	-.24136
4.585	16.909	265.71029	.68007	.16591	4.09912	.01474	-.22796	-.31750	-.26220
4.585	19.136	265.85135	.79644	.22012	3.62999	.01457	-.23344	-.32243	-.25924
4.582	21.365	265.43127	.91778	.29000	3.16461	.01559	-.26034	-.34599	-.27370
4.576	23.691	264.73211	1.02903	.37750	2.72592	.01739	-.30371	-.35637	-.30951
4.563	25.749	265.57441	1.11513	.46420	2.40224	.01823	-.34246	-.36817	-.32437
4.566	27.923	264.31401	1.16867	.55264	2.09125	.02202	-.39732	-.43991	-.39190
GRADIENT	.06724	.04435	-.00145	.79319	.00006	.00006	.00352	-.00264	-.00141

QM17, LTP1136, CRB 3, (B21CTF5M4) (MIDTE23) (VTR5)

(ZPP012) (30 AUG 73)

REFERENCE DATA

SREF = 87.1540 SQ. IN. XMRP = 12.5775 INCHES
 LREF = 19.3545 INCHES YMRP = .0005 INCHES
 SREF = 14.0502 ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .248
 ELEVR = -0.000 AILRON = 0.000
 RUDDER = .000 BOFLAP = .000
 SPDRK = .000

RUN NO. 35/ 0 RV/L = 9.99 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	Q (PSF)	CL	CD	L/D	CAC	CPB	CPBM	CPSC
10.043	-2.808	577.07046	-.24314	.03845	-4.19376	.01312	-.19031	-.29808	-.23354
10.013	-.461	574.41054	-.14023	.05146	-2.72519	.01255	-.19376	-.27306	-.22323
10.004	1.916	574.41054	-.03401	.04792	-.70979	.01239	-.19411	-.26815	-.22046
10.008	4.099	575.24460	.08293	.04792	1.31186	.01239	-.20991	-.26004	-.22036
10.026	6.467	577.07739	.16912	.03240	3.22731	.01265	-.21069	-.26237	-.22509
10.027	8.662	577.92219	.26946	.06136	4.39134	.01270	-.21284	-.26217	-.22593
10.008	10.962	575.96310	.37594	.07707	4.87790	.01324	-.21950	-.29847	-.23562
9.999	13.280	575.40443	.48747	.10105	4.82414	.01449	-.18345	-.33974	-.25778
10.013	15.590	577.05220	.60297	.13638	4.42112	.01419	-.19530	-.35352	-.23251
9.994	17.954	576.11309	.73431	.16971	3.87062	.01522	-.23697	-.32541	-.27077
9.970	20.296	574.42914	.86153	.23729	3.34851	.01536	-.24735	-.33867	-.27331
9.967	22.713	574.15367	.98798	.34251	2.88455	.01693	-.29798	-.34738	-.30134
9.992	25.013	576.92367	1.08033	.43288	2.49568	.01882	-.35588	-.36030	-.33496
9.992	27.399	578.64172	1.17386	.53549	2.19210	.02132	-.43701	-.39913	-.37943
9.992	29.530	578.90850	1.18240	.60514	1.95391	.02357	-.43941	-.46717	-.41939
GRADIENT		-.24166	.04462	-.00153	.80166	-.00010	-.00245	.00425	.00182

RUN NO. 36/ 0 RV/L = 11.78 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	Q (PSF)	CL	CD	L/D	CAC	CPB	CPBM	CPSC
11.651	-2.862	624.05940	-.24257	.05809	-4.17558	.01335	-.22995	-.23138	-.23753
11.665	-.542	626.59971	-.14157	.05062	-2.78595	.01231	-.19963	-.27100	-.21899
11.604	1.790	621.25179	-.03734	.04764	-.78040	.01274	-.20934	-.29092	-.22669
11.626	4.152	624.63272	.06796	.04776	1.42333	.01196	-.18032	-.28574	-.21288
11.624	6.369	624.06997	.16748	.05184	3.23078	.01232	-.20963	-.29930	-.21915
11.800	8.708	621.68281	.27501	.06171	4.45681	.01262	-.19605	-.30051	-.22449
11.792	10.967	621.62160	.38149	.07778	4.90471	.01237	-.16093	-.31051	-.22006
11.803	13.355	623.23596	.48904	.10105	4.83956	.01314	-.21978	-.27363	-.23380
11.730	15.640	618.44500	.61146	.13834	4.42013	.01638	-.27779	-.35761	-.29153
11.780	18.071	619.99768	.74686	.19472	3.83561	.01526	-.22871	-.36792	-.27184
11.764	20.452	622.67876	.87575	.26483	3.30684	.01612	-.26417	-.35545	-.28689
11.791	22.808	624.64469	.98927	.34692	2.85484	.01739	-.30094	-.35471	-.29051
11.790	25.158	624.37068	1.08351	.43935	2.46619	.01924	-.36611	-.39028	-.34233
11.776	27.467	623.25275	1.16641	.53566	2.18123	.02071	-.40019	-.41610	-.36845
GRADIENT		-.15350	.04420	-.00145	.80248	-.00016	-.00594	-.00780	.00283

REFERENCE DATA
 REF = 07.1960 84.1M. XREF = 12.5770 INCHES
 LREF = 19.3845 INCHES YREF = .0000 INCHES
 SREF = 14.0502 ZREF = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA
 BETA = .000 MACH = .248
 ELEVR = -5.400 AILRON = .000
 RUDDER = .000 BOFLAP = .000
 SPDRK = .000

RUN NO. 37/ 0 RV/L = 2.42 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB
2.429	-2.355	.00002	-.23288	.04945	.06759	-.00916	.00069	-.00057	.03784
2.425	-.433	.00064	-.16259	.03271	.06842	-.00874	.00100	-.00059	.03617
2.427	1.703	.00248	-.07221	.05025	.07026	-.00793	.00080	-.00098	.03705
2.419	3.829	.00881	.02532	.04564	.07148	-.00900	.00087	-.00068	.03707
2.426	5.935	.00241	.12563	.03674	.07251	-.00804	.00094	-.00050	.03837
2.430	8.030	.00002	.22780	.02437	.07033	-.00875	.00078	-.00070	.03735
2.427	10.135	.00172	.32929	.01130	.06947	-.00799	.00079	-.00130	.03949
2.420	12.306	.05171	.43823	-.00366	.07268	-.00858	.00111	-.00136	.04168
2.425	14.397	.00195	.53212	-.01901	.07582	-.00755	.00131	-.00101	.04218
2.413	16.600	.00160	.64419	-.03470	.07444	-.00963	.00282	-.00179	.04351
2.424	18.861	.00137	.78672	-.04747	.06822	-.01003	.00349	-.00070	.04377
2.418	20.849	.00131	.93813	-.05679	.03882	-.00312	.00031	.00121	.04658
2.425	23.108	.00070	1.07261	-.05258	.03947	-.00309	.00062	.00904	.05238
2.422	25.188	.00178	1.22169	-.03531	.02568	-.00034	.00266	.00631	.05778
2.417	27.208	-.00194	1.26348	-.03421	.04735	.01926	.00535	.00091	.06334
GRADIENT		-.00004	.04319	-.00064	.00063	.00006	.00002	-.00003	-.00007

RUN NO. 38/ 0 RV/L = 4.56 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB
4.646	-2.644	.00895	-.23285	.04746	.06669	-.01140	.00125	-.00064	.03880
4.649	-.304	.00881	-.15043	.05031	.06614	-.01091	.00112	-.00069	.03933
4.682	1.751	.00615	-.03291	.04986	.06568	-.01006	.00113	-.00082	.03986
4.682	3.942	.00642	.04730	.04414	.06669	-.01039	.00114	-.00115	.04064
4.644	6.064	.00580	.14281	.03488	.06841	-.00965	.00109	-.00093	.03904
4.680	8.185	.00811	.24321	.02317	.06476	-.00971	.00092	-.00092	.04149
4.647	10.343	.00540	.34925	.00681	.06831	-.00937	.00120	-.00106	.04194
4.683	12.587	.00463	.45536	-.00776	.06897	-.00870	.00125	-.00121	.04223
4.628	14.734	.00465	.56423	-.02377	.07167	-.00916	.00157	-.00136	.04391
4.703	16.905	.00483	.68646	-.03967	.06533	-.00917	.00152	-.00228	.04502
4.690	19.167	.00345	.82206	-.05571	.06307	-.00751	.00153	-.00188	.04442
4.687	21.320	.00283	.94736	-.06886	.05616	-.00451	.00035	-.00127	.04772
4.790	23.900	.00050	1.10998	-.08206	.04132	-.00385	.00054	-.00154	.04263
4.677	25.716	.00548	1.23027	-.05650	.02299	-.00459	.00176	.00961	.04134
4.662	27.934	-.00120	1.30533	-.05342	.04308	.00671	.00273	-.00325	.04145
GRADIENT		-.00010	.04556	-.00048	-.00002	.00016	-.00001	-.00008	.00028

0A17,LTPT138,ORB 3, (B21CTF5M4) (N:07E23) (VTR5)

(RPP013) (30 AUG 73)

REFERENCE DATA

SREF = 87.1960 24.1M. XREF = 12.5770 INCHES
 LREF = 19.3545 INCHES YREF = .0000 INCHES
 SREF = 14.0502 ZREF = 6.0000 INCHES
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .248
 ELEVTR = -5.400 AIRRON = .000
 RUDDER = .000 SDFLAP = .000
 SPOBRK = .000

RUN NO. 39/ 0 RV/L = 10.03 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CAL	CAS
10.146	-2.829	.01201	-2.6997	.04563	.06993	-.00940	.00124	-.00046	.04144
10.111	-.905	.01149	-1.6022	.04965	.06875	-.00992	.00113	-.00047	.03848
10.064	1.783	.01119	-.05560	.04866	.06755	-.00886	.00117	-.00051	.04100
10.120	4.067	.01036	.04606	.04305	.06742	-.00824	.00112	-.00054	.03947
10.066	6.312	.00973	1.4940	.03324	.06694	-.00785	.00109	-.00055	.04019
10.057	8.655	.00821	.25934	.01999	.06623	-.00759	.00109	-.00074	.04136
10.067	10.820	.00836	.36418	.00491	.06918	-.00745	.00129	-.00091	.04551
10.051	13.202	.00736	.47706	-.01201	.07093	-.00693	.00132	-.00113	.04760
10.062	15.577	.00686	.60764	-.02949	.06906	-.00646	.00116	-.00060	.04709
10.070	17.690	.00593	.73576	-.04359	.06149	-.00565	.00108	-.00192	.04661
10.065	20.242	.00597	.86181	-.05634	.05402	-.00474	.00054	-.00079	.04908
10.062	22.624	.00406	1.01230	-.06286	.04765	-.00326	-.00075	-.00321	.05090
10.014	24.976	.00040	1.14811	-.06226	.04341	.00021	-.00027	-.00499	.05660
10.119	27.287	.00146	1.25402	-.06210	.03653	-.00267	.00107	-.00406	.06292
10.027	29.375	-.00183	1.32541	-.05750	.04816	.00302	-.00100	-.00540	.07317
GRADIENT		-.00025	.04329	-.00036	-.00036	.00015	-.00001	-.00001	-.00015

RUN NO. 40/ 0 RV/L = 11.91 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAS
11.905	-2.846	.01417	-2.7074	.04462	.06649	-.00866	.00110	-.00042	.03960
11.859	-.612	.01325	-1.6401	.04906	.06778	-.00943	.00111	-.00040	.04356
11.836	1.740	.01331	-.06054	.04842	.06757	-.00946	.00116	-.00053	.04321
11.843	4.042	.01143	.04639	.04266	.06743	-.00833	.00106	-.00053	.04118
11.825	6.365	.01176	1.5361	.03292	.06740	-.00657	.00107	-.00056	.04336
11.895	8.654	.01030	.25646	.01947	.06708	-.00776	.00111	-.00066	.04323
11.845	11.008	.01051	.36732	.00366	.06684	-.00625	.00127	-.00094	.04453
11.827	13.234	.00926	.47942	-.01291	.07066	-.00767	.00132	-.00116	.04561
11.776	15.615	.00762	.60170	-.02976	.06730	-.00655	.00112	-.00062	.04642
11.901	17.999	.00737	.73959	-.04416	.05949	-.00616	.00107	-.00182	.04726
11.653	20.411	.00736	.86842	-.05614	.05122	-.00495	.00036	-.00053	.04927
11.693	22.830	.00359	1.05405	-.06441	.04706	-.00056	-.00153	-.00356	.05191
11.890	25.040	.00371	1.12263	-.06045	.04358	-.00209	-.00007	-.00293	.05732
11.907	27.342	.00356	1.27818	-.06165	.03799	-.00317	-.00057	-.00186	.06513
GRADIENT		-.00035	.04324	-.00027	-.00015	.00019	-.00000	-.00002	.00029

QAI7,LTPT136,ORB 3, (2E1C7F5M4) (M07E23) (V7E3)

(ZPP013) (30 AUG 75)

REFERENCE DATA

2027 = 87.1560 IN. 100P = 12.5770 INCHES
 1027 = 19.1545 INCHES 100P = .0000 INCHES
 2027 = 14.0802 200P = 6.0000 INCHES
 SCALE = .0151 SCALE

BETA = .000 MACH = .248
 ELEVTR = -5.400 AIRCON = .000
 RUDDER = .000 BOLLAP = .000
 SPDRSK = .000

PARAMETRIC DATA

RUN NO. 37/0 RV/L = 2.42 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	Q (P/ST)	CL	CD	L/D	CAC	CPB	CPM	CPSC
2.429	-2.555	132.68189	-25053	.08008	-4.18631	.01174	-.17690	-.27694	-.20683
2.425	-4.333	132.40134	-1.6219	.05394	-3.00682	.01159	-.17217	-.28079	-.20831
2.427	1.700	132.54255	-.07568	.04839	-1.52271	.01141	-.18153	-.26325	-.20303
2.419	3.829	131.70080	.02022	.04709	.42948	.01067	-.16.81	-.25431	-.19336
2.428	5.855	132.54255	.12116	.04953	2.44818	.01118	-.18895	-.27619	-.19694
2.430	9.030	133.10362	.22216	.05596	3.97012	.01047	-.15668	-.24314	-.18823
2.427	10.135	132.68376	.32216	.06807	4.86436	.01106	-.17111	-.27587	-.20756
2.420	12.308	131.94253	.42899	.08941	4.77567	.01278	-.17200	-.28809	-.22745
2.425	14.397	132.54442	.52014	.11390	4.56673	.01267	-.18214	-.28425	-.22543
2.413	16.800	131.27908	.62725	.15079	4.15961	.01331	-.19622	-.30479	-.23682
2.424	18.861	132.40320	.76055	.20676	3.67846	.01363	-.22581	-.29391	-.24255
2.418	20.849	131.84295	.89891	.28081	3.19401	.01485	-.25126	-.32370	-.26430
2.425	23.108	132.68376	1.00811	.37299	2.70279	.01755	-.30817	-.35124	-.31251
2.422	25.189	132.26477	1.12055	.46800	2.25821	.01952	-.34827	-.39175	-.34730
2.417	27.209	131.70448	1.13631	.54729	2.08171	.02137	-.36121	-.41169	-.38027
GRADIENT		-.13184	.04232	-.03218	.75216	-.00013	.00067	.00335	.00235

RUN NO. 36/0 RV/L = 4.56 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	Q (P/ST)	CL	CD	L/D	CAC	CPB	CPM	CPSC
4.646	-2.644	283.63502	-25039	.08808	-4.23822	.01244	-.18777	-.30855	-.22144
4.689	-3.994	283.97509	-1.5008	.05135	-2.92280	.01200	-.18353	-.30124	-.21359
4.682	1.751	285.41356	-.05441	.04802	-1.13309	.01225	-.17163	-.27433	-.21759
4.682	3.942	287.85450	.04416	.04729	.93368	.01259	-.17578	-.28587	-.22404
4.644	6.084	283.45518	.13613	.04975	2.77657	.01084	-.16417	-.27141	-.19282
4.680	8.193	283.55906	.23742	.05759	4.12253	.01257	-.17851	-.30648	-.22378
4.647	10.365	284.01640	.34197	.07150	4.78293	.01225	-.16488	-.27747	-.21804
4.683	12.567	285.97779	.44611	.09165	4.86738	.01204	-.18074	-.29048	-.21420
4.628	14.734	282.05759	.55172	.12051	4.57821	.01338	-.19374	-.30701	-.23803
4.705	16.903	270.87753	.66834	.16164	4.13487	.01358	-.19787	-.33007	-.24171
4.650	19.167	284.89767	.79478	.21728	3.65786	.01442	-.23418	-.32961	-.25651
4.687	21.320	289.33934	.90883	.28216	3.21393	.0152	-.25258	-.33032	-.27116
4.980	23.500	258.27643	1.04266	.36569	2.70337	.01768	-.29801	-.36180	-.31479
4.877	25.716	286.36180	1.13293	.48293	2.34596	.01990	-.36080	-.41003	-.35414
4.962	27.834	255.19532	1.17827	.56429	2.08807	.02141	-.40743	-.42688	-.38089
GRADIENT		.60942	.04471	-.19017	.78950	.00003	.00227	.00433	-.00033

OA17, LTP1138, ORB 3, (821CTF5M4) (M107E23) (V783)

(ZPP013) (30 AUG 73)

REFERENCE DATA

SR07 = 87.1960 84.1M. 107P = 12.5770 INCHES
 LR07 = 19.3545 INCHES 108P = .0000 INCHES
 BR07 = 14.0902 INCHES 109P = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .848
 ELEVTR = -9.400 AIRCUM = .000
 RUDDER = .000 BOPLAP = .077
 SPDRK = .000

RUN NO. 38/ 0 RV/L = 10.03 GRADIENT INTERVAL = -3.00/ 5.00

RV/L	ALPHA	Q (PS ²)	Q	CD	L/D	CAC	CPB	CPBH	CPSC
10.146	-2.869	582.37589	-2.6339	.05870	-4.48707	.01257	-.19978	-.30384	-.22361
10.111	-.905	578.73307	-.15978	.05108	-3.13924	.01250	-.21875	-.29102	-.21893
10.084	1.783	575.79433	-.05729	.04690	-1.22182	.01214	-.19030	-.28811	-.21987
10.120	4.067	580.59951	.04269	.04821	.92812	.01148	-.18030	-.28420	-.20425
10.088	6.312	577.19889	.14484	.04846	2.92826	.01077	-.16677	-.30149	-.19159
10.037	8.655	573.56465	.25338	.05979	4.31017	.01180	-.16002	-.25334	-.21003
10.067	10.920	575.24854	.35665	.07381	4.83191	.01402	-.16874	-.31998	-.24951
10.051	13.202	573.99494	.46719	.09728	4.80335	.01386	-.19290	-.30621	-.24902
10.082	15.577	575.53181	.59324	.13478	4.40173	.01422	-.20017	-.34321	-.25296
10.070	17.890	577.08035	.71357	.18453	3.86691	.01459	-.22763	-.31608	-.25983
10.065	20.242	577.08233	.84884	.25224	3.35731	.01328	-.24915	-.32738	-.27145
10.062	22.624	577.08233	.95859	.33140	2.89254	.01663	-.26794	-.33676	-.29386
10.014	24.978	571.20583	1.06703	.42834	2.49109	.01828	-.34643	-.38886	-.32488
10.119	27.267	564.51855	1.14313	.51932	2.20120	.02009	-.40324	-.39110	-.35751
10.027	29.375	574.14879	1.18320	.60004	1.97186	.02346	-.46429	-.44689	-.41747
GRADIENT		-.36780	.04445	-.00181	.78976	-.00015	.00374	.00270	.00265

RUN NO. 40/ 0 RV/L = 11.91 GRADIENT INTERVAL = -3.00/ 5.00

RV/L	ALPHA	Q (PS ²)	Q	CD	L/D	CAC	CPB	CPBH	CPSC
11.905	-2.946	625.09187	-.26809	.05848	-4.58436	.01318	-.19456	-.28482	-.23456
11.839	-.612	620.01426	-.16348	.05063	-3.21615	.01429	-.20769	-.33318	-.25425
11.838	1.740	619.87887	-.08196	.04856	-1.33128	.01314	-.18493	-.31075	-.23377
11.843	4.042	620.02459	.04327	.04565	.94373	.01228	-.21584	-.32721	-.21849
11.923	6.365	618.89455	.14902	.04975	2.99526	.01174	-.21419	-.30446	-.20897
11.883	8.654	626.50126	.25082	.05784	4.33322	.01159	-.18355	-.30032	-.20621
11.827	11.008	622.41716	.35986	.07375	4.87945	.01231	-.21680	-.27159	-.21900
11.776	13.254	621.01025	.46982	.09722	4.81995	.01347	-.18579	-.32907	-.23968
11.901	15.815	616.35586	.58751	.13350	4.40751	.01478	-.19600	-.38606	-.26296
11.901	17.999	628.77130	.71705	.18634	3.84396	.01474	-.22291	-.33026	-.26233
11.853	20.411	625.10376	.83222	.25722	3.31322	.01523	-.25576	-.32632	-.27101
11.883	22.830	608.33523	.98647	.34960	2.85032	.01643	-.30617	-.34781	-.29591
11.890	25.040	624.96636	1.04270	.42039	2.48034	.01799	-.36239	-.35989	-.32015
11.907	27.562	632.56703	1.13164	.53678	2.16411	.02021	-.41474	-.41766	-.35955
GRADIENT		-.85874	.04441	-.00181	.79186	-.00016	-.00174	-.00449	.00294

DATE 15 NOV 73

TABULATED SOURCE DATA - 0A17

PAGE 37

0A17,LTPT138,ORB 3, (B21CF3M4) (M107E23) (V7R5)

(RPP014) (30 AUG 73)

REFERENCE DATA

SRCP = 87.1540 IN. XRRP = 12.5770 INCHES
 LRRP = 19.3545 INCHES YRRP = .0000 INCHES
 BRCP = 14.0502 ZRRP = 6.0000 INCHES
 SCALE = .0150 SCALE

BETA = .000 MACH = .248
 ELEVTR = -5.400 ALLRON = .000
 RUDDER = .000 BOFLAP = -14.250
 SPDRK = 24.920

PARAMETRIC DATA

RUN NO. 42/ 0 RV/L = 4.74 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB
4.743	-2.892	.00201	-.31873	.06192	.10649	-.00297	.00019	.00033	.04339
4.738	-.449	.00235	-.22199	.06482	.10568	-.00333	.00014	.00031	.04280
4.741	1.803	.02208	-.12022	.06404	.10583	-.00342	.00039	.00020	.04187
4.738	3.882	.00147	-.02667	.05890	.10641	-.00279	.00048	.00019	.04257
4.751	5.959	.00065	.06922	.04957	.10905	-.00191	.00045	.00006	.04122
4.755	8.232	.00082	.17769	.03660	.11912	-.00201	.00052	.00020	.04085
4.755	10.462	.00076	.28309	.02120	.10851	-.00191	.00051	.00003	.04190
4.755	12.518	-.00018	.39046	.00582	.11114	-.00062	.00048	-.00031	.04187
4.753	14.713	-.00059	.48991	-.01155	.11210	-.00047	.00071	-.00034	.04373
4.750	16.822	-.00095	.60533	-.02774	.10806	.00040	.00050	-.00145	.04443
4.734	19.134	-.00172	.74176	-.04487	.10451	.00192	.00025	-.00132	.04590
4.727	21.382	-.00283	.88049	-.05862	.09628	.00461	-.00036	.00268	.04837
4.731	23.499	-.00276	1.01625	-.05476	.08405	.00642	-.00253	.00202	.05305
4.731	25.676	-.00094	1.15320	-.05606	.07480	.00693	-.00423	.00872	.06187
4.741	27.748	-.00567	1.21186	-.05054	.06347	.01341	-.00291	.00055	.06618
GRADIENT		-.00008	.04482	-.00043	-.00002	.00002	.00005	-.00002	-.00017

RUN NO. 41/ 0 RV/L = 9.90 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB
10.045	-2.896	.01219	-.31057	.06042	.10014	-.00782	.00031	-.00012	.04413
10.051	-.604	.01197	-.20757	.06438	.09892	-.00791	.00039	-.00017	.04430
10.062	1.673	.01169	-.10421	.06381	.09823	-.00799	.00053	-.00021	.04439
10.083	4.052	.01059	.00336	.05895	.09975	-.00753	.00064	-.00022	.04368
10.050	6.255	.00952	.10093	.04889	.10006	-.00687	.00068	-.00026	.04377
10.010	8.539	.01008	.20774	.03514	.10114	-.00780	.00080	-.00040	.04341
10.043	10.883	.00848	.31797	.01887	.10314	-.00676	.00169	-.00084	.04366
9.997	13.190	.00726	.43029	.0129	.10516	-.00597	.00262	-.00089	.04348
10.052	15.692	.00675	.56290	-.01784	.10140	-.00551	.00377	-.00046	.04619
10.147	17.785	.00483	.69653	-.03223	.09725	-.00451	.00467	-.00138	.04687
9.998	20.102	.00344	.82596	-.04571	.08919	-.00417	.00607	-.00117	.04904
10.002	22.513	.00297	.97021	-.05599	.08309	-.00104	.00840	-.00247	.05172
9.991	24.863	.00184	1.08610	-.05676	.08084	-.00001	.00959	-.001546	.05875
9.989	27.242	.00191	1.21510	-.05687	.07383	-.00326	.00956	-.00370	.06370
9.996	29.354	.00022	1.27736	-.05188	.06556	.00228	-.00136	-.00230	.07173
GRADIENT		-.00022	.04920	-.00022	-.00004	.00005	.00005	-.00001	-.00008

0A17,LTPT136,ORB 3, (B21C775M4) (M107E23) (V7R3)

(ZPP014) (30 AUG 73)

REFERENCE DATA

SREF = 87.1560 50. IN. XREF = 12.5776 INCHES
 LREF = 19.3545 INCHES YREF = .0000 INCHES
 BREF = 14.0502 ZREF = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .248
 ELEVTR = -5.400 AILRON = .000
 RUDDER = .000 BOFLAP = -14.250
 SPDRK = 24.920

RUN NO. 42/ 0 RV/L = 4.74 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	6 (PST)	CL	CD	L/D	CAC	CPB	CPBM	CPSC
4.743	-2.682	266.07036	-3.1547	.07682	-4.10642	.01403	-.20384	-.32366	-.24980
4.736	-4.449	265.51305	-.22148	.06656	-3.32756	.01376	-.20843	-.32868	-.24487
4.741	1.803	265.66113	-.12218	.06022	-2.02860	.01360	-.20323	-.30037	-.24502
4.738	3.662	265.65634	-.03058	.05697	-.52671	.01347	-.19798	-.30768	-.23985
4.731	5.999	267.20504	.06367	.05633	1.18826	.01332	-.19547	-.28617	-.23708
4.735	8.232	267.49026	.17062	.06169	2.76881	.01288	-.19340	-.27911	-.22923
4.735	10.462	267.63240	.27453	.07225	3.79979	.01308	-.19362	-.28114	-.23290
4.735	12.518	266.06570	.37015	.08615	4.19934	.01357	-.19694	-.29360	-.24143
4.733	14.713	265.80792	.47678	.11328	4.20964	.01410	-.21901	-.30133	-.25098
4.730	16.822	265.52826	.56745	.14963	3.95257	.01451	-.23597	-.30837	-.25815
4.734	19.134	266.08649	.71549	.20074	3.56418	.01478	-.25085	-.32438	-.26294
4.727	21.362	265.94355	.84135	.26613	3.16136	.01572	-.27255	-.33358	-.27973
4.731	23.499	266.22598	.95381	.35499	2.66687	.01715	-.29945	-.36337	-.30509
4.731	25.676	266.06649	1.06362	.44914	2.36811	.02002	-.31812	-.41905	-.35824
4.741	27.748	267.07416	1.09605	.51951	2.10979	.02252	-.37442	-.43449	-.40077
GRADIENT		-.05136	.04352	-.00302	.56649	-.00006	.00094	.00320	.00190

RUN NO. 41/ 0 RV/L = 9.90 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	6 (PST)	CL	CD	L/D	CAC	CPB	CPBM	CPSC
10.045	-2.696	575.61805	-.30712	.07604	-4.03915	.01420	-.20883	-.34826	-.25271
10.051	-.604	576.79809	-.20688	.06656	-3.10793	.01428	-.22226	-.36020	-.25408
10.062	1.673	576.34657	-.10803	.06074	-1.74372	.01400	-.21848	-.33809	-.24904
10.053	4.052	576.46472	-.00081	.05904	-.01379	.01428	-.20975	-.30992	-.25382
10.060	6.255	576.48472	.09502	.05940	1.59980	.01418	-.20644	-.29120	-.25226
10.043	8.539	573.86844	.20022	.06559	3.05236	.01410	-.21081	-.30368	-.25082
10.043	10.883	577.79690	.30689	.07856	3.92929	.01424	-.20855	-.30363	-.25332
9.997	13.190	573.59197	.41864	.09944	4.20969	.01464	-.21784	-.33555	-.26057
10.082	15.692	584.94286	.54674	.13507	4.04794	.01488	-.24051	-.35112	-.26471
10.147	17.785	591.95513	.66337	.17901	3.70683	.01516	-.24140	-.35128	-.26972
9.996	20.102	574.66333	.79135	.24096	3.28421	.01567	-.26187	-.35846	-.27879
10.002	22.513	575.65040	.91771	.31977	2.86591	.01631	-.29607	-.36833	-.29016
9.991	24.883	575.84746	1.03916	.40549	2.48875	.01741	-.35953	-.35708	-.30988
9.99	27.242	575.43373	1.10635	.50566	2.18793	.01961	-.36875	-.40380	-.34888
9.896	29.354	564.78174	1.13879	.58094	1.96024	.02196	-.43391	-.48005	-.39071
GRADIENT		.41208	.04411	-.00245	.58180	-.00000	.00002	.00596	.00007

DATE 15 NOV 73

TABULATED SOURCE DATA - QM17

PAGE 39

QM17, L1PT138, ORB 3, (B21C775M4) (M107E23) (1785)

(RPP015) (30 AUG 73)

REFERENCE DATA

SREF = 87.1560 IN. XREF = 12.5770 INCHES
 LREF = 19.3545 INCHES YREF = .0000 INCHES
 SREF = 14.0502 ZREF = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .255
 ELEVTR = -11.800 AILRON = .000
 RUDDER = .000 BOFLAP = -14.250
 SPDGRK = 24.920

RUN NO. 45/ 0 RN/L = 4.63 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAS
4.637	-2.740	.00725	-.36309	.06430	.12869	-.01077	.00071	-.00106	.04263
4.624	-.593	.00692	-.28369	.06634	.12821	-.01045	.00078	-.00119	.04104
4.625	1.604	.00705	-.16452	.06670	.12797	-.01078	.00085	-.00119	.04086
4.618	3.769	.00680	-.06834	.06373	.13014	-.01073	.00096	-.00174	.04063
4.640	5.920	.00686	.03215	.05480	.13101	-.01084	.00099	-.00148	.03989
4.623	6.141	.00690	.13363	.04275	.13054	-.01093	.00098	-.00176	.03876
4.630	10.276	.00616	.23055	.02890	.13226	-.00960	.00078	-.00204	.03942
4.622	12.429	.00564	.33811	.01275	.13268	-.00954	.00094	-.00245	.04226
4.346	14.555	.00499	.44401	-.00359	.13438	-.00834	.00082	-.00244	.04189
4.648	16.802	.00523	.55866	-.02034	.13183	-.00866	.00101	-.00357	.04301
4.628	19.008	.00371	.69149	-.03596	.12952	-.00837	.00371	-.00306	.04408
4.624	21.144	.00354	.82124	-.05133	.12255	-.00378	.00347	-.00093	.04592
4.637	23.446	.00368	.95333	-.05511	.11796	-.00669	.00066	-.00336	.04924
4.613	25.667	.00259	1.06485	-.05760	.11792	-.00267	-.00731	-.00490	.03551
4.631	27.787	.00098	1.16954	-.05318	.11173	-.00257	.00064	-.00275	.06016
GRADIENT		-.00006	.04527	-.00016	.00019	-.00001	.00004	-.00009	-.00028

RUN NO. 44/ 0 RN/L = 9.85 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAS
9.971	-3.071	.01237	-.38647	.06146	.13153	-.00820	.00045	-.00088	.04439
9.957	-.761	.01200	-.28028	.06630	.12649	-.00812	.00050	-.00092	.04341
9.963	1.627	.01082	-.17360	.06631	.12977	-.00732	.00053	-.00096	.04359
9.908	3.828	.01181	-.07268	.06211	.13031	-.00629	.00062	-.00101	.04244
9.954	6.173	.01021	.03278	.05219	.13097	-.00712	.00054	-.00115	.04330
9.929	8.408	.00914	.13433	.03971	.13295	-.00663	.00070	-.00136	.04127
9.923	10.750	.00842	.24202	.02463	.13483	-.00644	.00072	-.00184	.04153
9.924	12.855	.00773	.34311	.00900	.13634	-.00581	.00059	-.00215	.04363
9.889	15.303	.00596	.47337	-.00987	.13467	-.00452	.00044	-.00201	.04449
9.936	17.636	.00527	.60232	-.02546	.12951	-.00376	.00027	-.00290	.04493
9.901	19.941	.00527	.74244	-.03997	.12414	-.00314	.00011	-.00234	.04643
9.910	22.299	.00251	.87801	-.05103	.11794	.00076	-.00133	-.00411	.04932
9.906	24.649	.00136	1.00459	-.05424	.11328	.00254	-.00191	-.00684	.05361
9.897	27.075	.00133	1.14140	-.05613	.10375	.00021	-.00060	-.00582	.06032
9.845	29.252	-.00169	1.21740	-.05199	.11251	.00311	-.00223	-.00600	.06797
GRADIENT		-.00014	.04540	.00009	-.00010	.00003	.00003	-.00002	-.00025

QM17,LTPT136,CKB 3,(B21C7F5M4)(M10FE23)(V7R5)

(ZPP015) (30 AUG 73)

REFERENCE DATA

SRDF = 87.1560 SQ.IN. XMRP = 12.5770 INCHES
 LREF = 19.3545 INCHES YMRP = .0000 INCHES
 BRDF = 14.0302 ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .255
 ELEVR = -11.800 AILRON = .000
 RUDDER = .000 BDFLAP = -14.250
 SPDRK = 24.920

RUN NO. 43/ 0 RN/L = 4.83 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	Q (PSF)	CL	CD	L/D	CAC	CPB	CPBM	CPSC
4.837	-2.740	265.57545	-.35960	.08159	-4.40743	.01345	-.19121	-.33123	-.23936
4.824	-.593	264.45406	-.26297	.07106	-3.70043	.01290	-.19117	-.31114	-.22963
4.825	1.604	264.73520	-.16632	.06207	-2.67967	.01278	-.19217	-.30264	-.22734
4.818	3.769	264.03287	-.07238	.05910	-1.22477	.01299	-.19080	-.29335	-.23120
4.840	5.920	266.27871	.02633	.05783	.45526	.01264	-.18919	-.28034	-.22484
4.823	8.141	264.45509	.12642	.06127	2.06329	.01215	-.19100	-.26199	-.21614
4.830	10.278	265.29434	.22177	.06918	3.20568	.01264	-.19311	-.26404	-.22498
4.822	12.429	264.59412	.32744	.08523	3.84206	.01346	-.19787	-.29900	-.23954
4.846	14.555	267.40197	.43066	.10811	3.98349	.01329	-.20335	-.29649	-.23648
4.848	16.802	268.09776	.55051	.14478	3.81246	.01380	-.21876	-.31633	-.24557
4.828	19.008	265.85759	.66549	.19122	3.48723	.01408	-.23562	-.32245	-.25060
4.824	21.144	265.71756	.78446	.24836	3.15863	.01471	-.26804	-.31569	-.26182
4.837	23.448	267.25882	.89654	.32879	2.72681	.01535	-.28316	-.34869	-.27510
4.813	25.667	264.46330	.98475	.40931	2.40582	.01631	-.32881	-.35193	-.29024
4.831	27.787	268.56708	1.05947	.49817	2.12671	.01792	-.37146	-.38796	-.31690
GRADIENT		-.19958	.04411	-.00352	.48661	-.00007	.00001	.00562	.00123

RUN NO. 44/ 0 RN/L = 9.85 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	Q (PSF)	CL	CD	L/D	CAC	CPB	CPBM	CPSC
9.971	-3.071	579.52428	-.38262	.08208	-4.66178	.01374	-.20937	-.32320	-.24455
9.957	-.761	576.27457	-.27937	.07001	-3.99017	.01328	-.20155	-.34896	-.23634
9.963	1.627	579.11718	-.17541	.06136	-2.85888	.01336	-.19137	-.31642	-.23780
9.908	3.828	573.65459	-.07666	.05712	-1.34213	.01374	-.20386	-.33415	-.24447
9.954	6.173	579.39938	.02697	.05541	.48678	.01352	-.20187	-.31984	-.24065
9.929	8.408	576.32405	.12708	.05893	2.15650	.01315	-.19410	-.27066	-.23394
9.923	10.750	576.18592	.23318	.06934	3.36300	.01318	-.19335	-.26379	-.23453
9.924	12.855	576.74941	.33251	.08511	3.90695	.01382	-.21403	-.30875	-.24586
9.889	15.303	573.66744	.45913	.11561	3.97150	.01447	-.22284	-.32552	-.23751
9.958	17.656	581.52300	.58173	.15822	3.67677	.01445	-.23202	-.33839	-.23705
9.931	19.981	575.21792	.71141	.21613	3.29160	.01493	-.25554	-.35017	-.26571
9.910	22.299	577.60611	.82986	.28518	2.90992	.01512	-.29823	-.34345	-.26913
9.906	24.689	577.89035	.93537	.37031	2.52593	.01657	-.32654	-.37486	-.29489
9.897	27.075	577.05159	1.04186	.46953	2.21892	.01859	-.36318	-.37708	-.33075
9.845	29.252	571.44741	1.08756	.54952	1.97912	.02049	-.42028	-.45088	-.36480
GRADIENT		-.71763	.04426	-.00363	.47946	.00000	.00093	.00003	-.00004

0A17,LTPT138,CAB 3, (B21C7F5H4) (M107E23) (V7R3)

(RPP016) (30 AUG 73)

REFERENCE DATA

SREF = 87.1960 SQ. IN. XMRP = 12.5770 INCHES
 LREF = 19.3545 INCHES YMRP = .0000 INCHES
 BREF = 14.0302 ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .254
 ELEVTR = 5.600 AILRON = .000
 RUDDER = .000 BOFLAP = -14.250
 SPDGRK = 24.920

RUN NO. 45/ 0 RN/L = 4.57 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB
4.567	-2.403	.00565	-.08336	.06913	-.00613	-.00695	-.00027	-.00226	.04849
4.576	-.172	.00620	.03634	.07037	-.00671	-.00779	-.00018	-.00256	.04724
4.571	2.004	.00555	.13477	.06783	-.00681	-.00718	-.00075	-.00276	.04731
4.570	4.210	.00620	.21397	.05982	-.00644	-.00625	.00005	-.00267	.04768
4.614	6.400	.00555	.33671	.04663	-.00632	-.00750	.00018	-.00262	.04656
4.593	6.586	.00470	.44428	.03445	-.00590	-.00631	.00009	-.00324	.04599
4.540	10.635	.00439	.54063	.01896	-.00573	-.00596	-.00003	-.00366	.04564
4.576	12.840	.00413	.64640	.00160	-.00443	-.00542	-.00006	-.00389	.04761
4.560	15.041	.00387	.76408	-.01656	-.00520	-.00537	.00007	-.00407	.04667
4.557	17.219	.00360	.88365	-.03325	-.00587	-.00447	-.00024	-.00499	.05005
4.573	19.321	.00221	1.00836	-.04853	-.01492	-.00048	-.00142	-.00551	.05136
4.552	21.653	.00164	1.15087	-.05370	-.02251	-.00106	-.00069	-.00397	.05491
4.564	23.660	.00099	1.26499	-.04781	-.02218	.00071	-.00118	-.00216	.06188
4.564	25.936	.00029	1.37231	-.03863	-.02561	.00469	-.00296	.00100	.06826
4.565	27.906	-.00445	1.39210	-.03096	-.02232	.01090	-.00248	-.01007	.07413
GRADIENT		.00005	.04534	-.00136	-.00032	-.00015	.00005	-.00007	-.00011

RUN NO. 46/ 0 RN/L = 9.99 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB
10.040	-2.481	.00646	-.07827	.06868	-.00321	-.00422	-.00049	-.00194	.04921
10.018	-.127	.00642	.03124	.07019	-.00449	-.00437	-.00041	-.00209	.05006
10.045	2.164	.00735	.13667	.06660	-.00530	-.00390	-.00030	-.00216	.04951
9.999	4.443	.00683	.24262	.05936	-.00594	-.00361	-.00031	-.00226	.04859
10.019	6.738	.00639	.34905	.04699	-.00643	-.00359	-.00016	-.00237	.04921
10.021	9.020	.00571	.45408	.03120	-.00623	-.00329	-.00011	-.00268	.04896
10.004	11.302	.00413	.56219	.01401	-.00369	-.00245	-.00005	-.00324	.05036
10.023	13.593	.00360	.67612	-.00467	-.00259	-.00185	-.00020	-.00365	.05059
9.990	15.968	.00287	.81057	-.02362	-.00491	-.00013	-.00095	-.00267	.04981
10.040	18.260	.00170	.93596	-.03907	-.01386	.00061	-.00093	-.00316	.05327
9.966	20.616	.00057	1.06545	-.05176	-.01957	.00267	-.00180	-.00359	.05596
10.006	22.969	-.00347	1.20876	-.05041	-.02424	.00877	-.00365	-.00901	.06050
9.993	25.272	-.00247	1.32533	-.04609	-.02748	.00668	-.00294	-.00702	.06735
GRADIENT		-.00026	.04608	-.00136	-.00039	.00010	.00003	-.00005	-.00010

OM17,LTPT138,ORB 3, (B21CTF5M4) (M107E23) (V7R5)

(ZPP016) (30 AUG 73)

REFERENCE DATA

SREF = 87.1560 90.1N. 3MRP = 12.5770 INCHES
 LREF = 19.3345 INCHES YMRP = .0000 INCHES
 BREF = 4.0502 ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .254
 ELEVTR = 5.600 AILRON = .000
 RUDDER = .000 BDFLAP = -14.250
 SPDRBK = 24.920

RUN NO. 45/ 0 RV/L = 4.57 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	Q (PSF)	CL	CD	L/D	CAC	CPB	CPBM	CPSC
4.567	-2.403	264.16367	-.06301	.07184	-.87705	.01561	-.25354	-.35377	-.27769
4.576	-.172	265.56297	.03655	.07026	.52026	.01336	-.24745	-.33237	-.27334
4.571	2.004	265.55566	.13231	.07251	1.82483	.01568	-.24814	-.34088	-.27696
4.570	4.210	264.66903	.22895	.07684	2.97966	.01558	-.24521	-.33325	-.27730
4.593	6.400	270.19194	.32921	.08586	3.63435	.01533	-.24305	-.30948	-.27284
4.540	8.586	267.94825	.43415	.10041	4.32590	.01520	-.23968	-.30415	-.27040
4.540	10.635	262.20072	.52785	.11843	4.45709	.01502	-.24131	-.30512	-.26735
4.576	12.640	265.57545	.62968	.14521	4.33777	.01559	-.24603	-.33059	-.27735
4.560	15.041	263.89587	.74221	.18227	4.07199	.01572	-.25045	-.36032	-.27974
4.557	17.219	264.58173	.85579	.23044	3.71378	.01622	-.25672	-.35485	-.26866
4.573	19.321	266.12722	.96763	.28783	3.36186	.01674	-.27105	-.35198	-.29788
4.552	21.653	263.74762	1.08948	.37474	2.90728	.01764	-.32217	-.35696	-.31366
4.564	23.860	265.19016	1.17822	.46796	2.51348	.01950	-.36228	-.40007	-.34690
4.564	25.938	265.84405	1.25097	.56552	2.21216	.02171	-.40326	-.42721	-.38626
4.565	27.906	265.57130	1.24472	.62417	1.99421	.02404	-.43175	-.46314	-.42778
GRADIENT		.09645	.04414	.00078	.58485	.00001	.00111	.00242	-.00020

RUN NO. 46/ 0 RV/L = 9.99 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	Q (PSF)	CL	CD	L/D	CAC	CPB	CPBM	CPSC
10.040	-2.481	576.58526	-.07323	.07192	-1.01614	.01594	-.25890	-.37919	-.28371
10.018	-.127	574.48646	.03139	.07012	.44766	.01640	-.25498	-.217	-.29182
10.045	2.164	577.15674	.13406	.07171	1.86933	.01616	-.26310	-.36404	-.28758
9.999	4.445	572.80878	.23749	.07799	3.04520	.01595	-.25730	-.36066	-.28385
10.019	6.738	575.90168	.34112	.08762	3.89301	.01567	-.24968	-.32322	-.27880
10.021	9.020	576.18093	.44357	.10200	4.34874	.01611	-.24553	-.32298	-.28672
10.004	11.302	575.34316	.54854	.12391	4.42678	.01610	-.24390	-.34162	-.28657
10.023	13.593	577.72622	.65828	.15437	4.28434	.01630	-.24083	-.37436	-.29003
9.990	15.968	574.64547	.78572	.20055	3.91778	.01636	-.26623	-.33907	-.29112
10.040	18.280	579.83966	.90107	.25617	3.51750	.01727	-.27432	-.35953	-.30722
9.966	20.616	575.06787	1.03416	.33375	3.09859	.01799	-.30727	-.35244	-.32011
10.006	22.969	577.46000	1.13259	.42529	2.66311	.01918	-.35647	-.38064	-.34137
9.943	25.272	576.61926	1.21815	.52413	2.32413	.02135	-.39175	-.41492	-.37985
GRADIENT		-.37498	.04487	.00085	.59035	-.00001	-.00014	.00276	.00016

DATE 15 NOV 75

TABULATED SOURCE DATA - 0A17

PAGE 43

0A17,LTFT138,CRB 3,(B19CTF544)(M10723)(V7R5)

(RPP017) (30 AUG 75)

REFERENCE DATA

SREF = 87.1560 SQ.IN. XREF = 12.5770 INCHES
 LREF = 19.3545 INCHES YREF = .0000 INCHES
 BREF = 14.0502 ZREF = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .254
 ELEVTR = 5.600 AILRON = .000
 RUDDER = .000 BOFLAP = -14.250
 SPOBRK = 24.920

RUN NO. 47/ 0 RV/L = 4.76 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB
4.746	-2.484	.00364	-.06031	.06890	-.00551	-.00391	-.00047	-.00173	.04829
4.758	-.292	.00305	.02240	.06996	-.00648	-.00331	-.00039	-.00182	.04736
4.728	1.895	.00395	.11800	.06668	-.01140	-.00445	-.00035	-.00206	.04760
4.727	4.071	.00392	.22047	.06090	-.00770	-.00499	-.00010	-.00201	.04716
4.728	6.166	.00356	.31965	.04937	-.00854	-.00459	-.00006	-.00197	.04637
4.704	8.460	.00372	.43920	.03518	-.00914	-.00481	-.00009	-.00233	.04636
4.710	10.522	.00302	.52320	.01949	-.00862	-.00396	-.00005	-.00263	.04597
4.730	12.701	.00196	.63209	.00226	-.00412	-.00235	-.00017	-.00275	.04704
4.726	14.944	.00166	.74140	-.01613	-.00318	-.00178	-.00028	-.00293	.04810
4.727	17.067	.00157	.87270	-.03259	-.00763	-.00225	-.00006	-.00364	.04932
4.722	19.287	.00017	.99703	-.04821	-.01191	.00222	-.00137	-.00411	.05197
4.737	21.472	.00038	1.13015	-.05323	-.02000	.00364	-.00232	-.00376	.05556
4.721	23.666	.00188	1.26629	-.04610	-.03340	.00140	-.00226	.00351	.06177
4.693	25.930	.00239	1.40594	-.04295	-.03304	-.00124	-.00124	.00732	.06852
4.759	27.973	.00022	1.40342	-.03886	-.01616	.00633	-.00371	.00694	.07435
GRADIENT		.00008	.04581	-.00125	-.00053	-.00020	.00005	-.00005	-.00014

RUN NO. 48/ 0 RV/L = 10.23 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB
10.335	-2.570	.00702	-.06321	.06842	-.00460	-.00370	-.00031	-.00156	.05177
10.333	-.258	.00790	.02387	.07013	-.00515	-.00429	-.00027	-.00176	.04913
10.332	2.200	.00720	.13660	.06645	-.00739	-.00407	-.00016	-.00181	.04846
10.329	4.327	.00673	.23334	.05967	-.00806	-.00384	-.00013	-.00189	.04909
10.353	6.546	.00702	.33270	.04748	-.00821	-.00416	-.00004	-.00200	.04852
10.321	8.862	.00589	.44899	.03204	-.00907	-.00364	.00003	-.00213	.04863
10.306	11.125	.00450	.54930	.01437	-.00679	-.00288	.00007	-.00245	.04969
.294	13.467	.00437	.66466	-.00469	-.00506	-.00290	.00011	-.00267	.05003
10.274	15.805	.00385	.79605	-.02412	-.00689	-.00141	-.00056	-.00245	.05051
10.308	18.136	.00169	.92912	-.04011	-.01628	.00095	-.00112	-.00301	.05428
10.320	20.576	.00167	1.07853	-.05117	-.02464	.00301	-.00226	-.00343	.05669
10.295	22.837	.00011	1.19663	-.05058	-.03099	.00354	-.00313	-.00765	.06072
10.271	25.154	.00248	1.33924	-.04807	-.04064	.00228	-.00217	-.00587	.06643
10.232	27.426	.00632	1.43428	-.04673	-.03351	-.00343	-.00043	-.00267	.07447
GRADIENT		-.00007	.04590	-.00126	-.00050	-.00001	.00003	-.00004	-.00038

DATE 15 NOV 73

(ZPP017) (30 AUG 73)

TABULATED SOURCE DATA - 0A17
0A17,LTFT136,CRB 3, (S19CTF594) (M10TE23) (VTR5)

REFERENCE DATA

SREF = 87.1560 50-IN. XMRP = 12.5770 INCHES
LREF = 19.3545 INCHES YMRP = .0000 INCHES
BREF = 14.0502 ZMRP = 6.0000 INCHES
SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .254
ELEVTR = 5.000 ALLION = .000
RUDDER = .000 BOFLAP = -14.250
SPDRWK = 24.920

RUN NO. 47/ 0 RV/L = 4.76 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	Q (PSF)	CL	CD	L/D	CAC	CPB	CPBH	CPSC
4.746	-2.464	265.67104	-.07727	.07229	-1.06897	.01991	-.24797	-.34913	-.28302
4.736	-.292	265.03072	.02276	.06987	.32572	.01549	-.24910	-.34732	-.27957
4.728	1.885	264.05124	.11574	.07073	1.63639	.01964	-.25089	-.34830	-.27931
4.727	4.071	264.18928	.21599	.07640	2.82207	.01532	-.24597	-.34504	-.27611
4.728	6.168	264.47045	.31248	.06363	3.73643	.01927	-.24520	-.31703	-.27172
4.704	8.460	262.08866	.42034	.09808	4.28565	.01328	-.23657	-.30716	-.27195
4.710	10.522	262.78940	.51281	.11508	4.45621	.01516	-.23369	-.30238	-.26983
4.730	12.701	265.03276	.61613	.14118	4.36417	.01545	-.24480	-.31987	-.27484
4.728	14.944	264.33648	.72048	.17560	4.10297	.01597	-.24113	-.35051	-.27704
4.727	17.067	264.75161	.84383	.22499	3.75080	.01612	-.25720	-.33096	-.26992
4.737	19.287	264.47249	.95700	.26381	3.37192	.01689	-.27766	-.35112	-.30058
4.722	21.472	266.29427	1.07120	.36415	2.94168	.01754	-.31195	-.36659	-.31204
4.721	23.668	264.47555	1.17828	.46611	2.52788	.01940	-.35533	-.42068	-.34522
4.693	25.930	261.28200	1.28318	.57618	2.22712	.02172	-.38740	-.44126	-.38647
4.759	27.973	269.23860	1.25768	.62395	2.01568	.02375	-.42499	-.48337	-.42261
GRADIENT	-.27844		.04460	.00061	.59805	-.00005	.00019	.00053	.00063

RUN NO. 48/ 0 RV/L = 10.23 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	Q (PSF)	CL	CD	L/D	CAC	CPB	CPBH	CPSC
10.335	-2.570	574.38894	-.08006	.07209	-1.11082	.01680	-.25455	-.40884	-.29902
10.333	-.258	574.53300	.02418	.07002	.34539	.01608	-.26061	-.36602	-.28814
10.332	2.200	574.95343	.13394	.07164	1.66966	.01613	-.25736	-.33848	-.28704
10.329	4.327	575.09952	.22818	.07710	2.95939	.01654	-.25957	-.36456	-.29434
10.353	6.546	578.33166	.32512	.08510	3.82060	.01590	-.25163	-.35347	-.28286
10.321	8.882	575.25248	.43866	.10098	4.34403	.01593	-.25392	-.32978	-.28342
10.308	11.125	575.11527	.53621	.12009	4.46512	.01597	-.24597	-.34553	-.28426
10.294	13.467	575.11822	.64771	.15008	4.31384	.01608	-.25573	-.35316	-.28610
10.274	15.805	572.46758	.77253	.19361	3.99013	.01632	-.25891	-.35984	-.29390
10.308	18.136	577.37250	.89544	.25109	3.58624	.01741	-.27051	-.40233	-.30980
10.320	20.576	578.91704	1.02584	.33044	3.10447	.01835	-.30170	-.39479	-.32647
10.295	22.837	576.81584	1.12430	.41859	2.68591	.01946	-.35751	-.39803	-.34622
10.271	25.154	574.29482	1.23287	.52374	2.34465	.02127	-.39077	-.42046	-.37843
10.232	27.426	570.79293	1.29460	.61916	2.09091	.02386	-.42869	-.47458	-.42464
GRADIENT	.11101		.04469	.00071	.59394	-.00003	.00019	.00017	.00060

DATE 19 NOV 73

TABULATED SOURCE DATA - ON17

PAGE 43

ON17, L1PT136, ORB 3, (B19C7F5M4) (M107E23) (VTR5)

(RPP018) (30 AUG 73)

REFERENCE DATA

SNK7 = 87.1960 96.1IN. XMRP = 12.5770 INCHES
LNG7 = 19.3545 INCHES YMRP = .0000 INCHES
BRG7 = 14.0902 ZMRP = 6.0000 INCHES
SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .251
ELEVTR = 14.700 AIRLON = .000
RUDDER = .000 BOXFLAP = -14.230
SPDRK = 24.920

RUN NO. 50/ 0 RN/L = 4.76 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB
4.794	-2.287	.00227	.11140	.06889	-.09434	-.00225	-.00040	-.00131	.05386
4.797	-.123	.00261	.20820	.06891	-.09420	-.00304	-.00081	-.00123	.05272
4.797	2.092	.00249	.30730	.06468	-.09534	-.00313	-.00007	-.00125	.05296
4.771	4.239	.00286	.40690	.07845	-.09582	-.00425	.00025	-.00151	.05186
4.772	6.313	.00256	.50561	.06499	-.09594	-.00434	.00053	-.00167	.05046
4.793	8.500	.00136	.60806	.04865	-.09565	-.00280	.00055	-.00216	.04932
4.780	10.702	.00161	.70896	.03108	-.09196	-.00275	.00019	-.00254	.05017
4.786	12.887	.00126	.81784	.01343	-.09057	-.00235	.00037	-.00252	.05049
4.768	15.040	.00063	.93841	-.00364	-.09229	-.00111	.00014	-.00282	.05224
4.774	17.230	-.00022	1.05896	-.01959	-.09418	.00021	.00005	-.00282	.05427
4.792	19.500	-.00123	1.19186	-.03412	-.09886	.00456	-.00161	-.00342	.05687
4.768	21.661	-.00129	1.32033	-.02987	-.10406	.00326	-.00081	-.00071	.06251
4.781	23.858	.00290	1.42166	-.01969	-.10494	-.01147	.00412	.00600	.06974
4.769	25.969	.00468	1.50725	-.02088	-.09708	-.01122	.00252	.01137	.07635
4.762	27.878	-.00321	1.49946	-.01585	-.05761	.01134	-.00372	.00252	.08365
GRADIENT		.00008	.04554	-.00191	-.00026	-.00026	.00010	-.00003	-.00026

RUN NO. 51/ 0 RN/L = 9.96 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB
10.154	-2.250	.00926	.10739	.08764	-.09189	-.00506	-.00028	-.00110	.05634
10.150	-.066	.00863	.20636	.08758	-.09256	-.00506	-.00007	-.00121	.05610
10.171	2.370	.00821	.31627	.08219	-.09298	-.00505	.00008	-.00137	.05563
10.116	4.639	.00834	.42363	.07350	-.09453	-.00556	.00029	-.00158	.05332
10.112	6.918	.00738	.52771	.05964	-.09457	-.00545	.00055	-.00187	.05401
10.075	9.182	.00687	.63747	.04311	-.09472	-.00548	.00071	-.00199	.05140
10.154	11.487	.00619	.74084	.02380	-.09137	-.00493	.00066	-.00258	.05208
10.134	13.847	.00562	.84663	.00370	-.09222	-.00484	.00078	-.00265	.05447
10.083	16.283	.00407	.99997	-.01568	-.09558	-.00217	.00020	-.00303	.05509
10.126	18.644	.00251	1.13775	-.03190	-.10255	.00325	-.00199	-.00356	.05764
10.121	20.829	-.00144	1.25552	-.03805	-.10620	.00764	-.00375	-.00446	.06091
10.134	23.269	-.00092	1.38472	-.03081	-.11264	.00581	-.00292	-.00749	.06845
10.097	25.438	-.00640	1.50610	-.02537	-.12024	.00934	-.00289	-.00756	.07430
9.958	27.563	.00356	1.55372	-.02569	-.09407	.00145	-.00052	-.00146	.07933
GRADIENT		-.00014	.04582	-.00208	-.00036	-.00006	.00008	-.00007	-.00041

OA17,LTPT138,ORB 3,(B19C7F5M4)(M107E23)(V7R5)

(ZPP018) (30 AUG 73)

REFERENCE DATA

SREF = 87.1560 SA. IN. XREF = 12.5770 INCHES
 LREF = 19.3545 INCHES YREF = .0000 INCHES
 BREF = 14.0502 ZREF = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .251
 ELEVTR = 14.700 AIRLON = .000
 RUDDER = .000 BDFLAP = -14.250
 SPDBRK = 24.920

RUN NO. 50/ 0 RN/L = 4.76 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	Q (PSF)	CL	CD	L/D	CAC	CPB	CPBM	CPSC
4.794	-2.287	265.12590	.11486	.08437	1.36138	.01774	-.28011	-.40077	-.31575
4.797	-.123	265.54737	.20939	.08348	2.36697	.01751	-.28493	-.37737	-.31151
4.797	2.052	265.68949	.30407	.09563	3.17972	.01740	-.27864	-.37903	-.30964
4.771	4.239	262.75231	.40213	.10647	3.77706	.01715	-.26823	-.36696	-.30520
4.772	6.313	263.17296	.49559	.12021	4.12273	.01678	-.26060	-.34836	-.29854
4.793	8.500	265.69536	.59419	.13799	4.35600	.01659	-.26355	-.32739	-.29519
4.780	10.702	264.98867	.69086	.16220	4.25933	.01659	-.26627	-.34339	-.29527
4.766	12.887	265.41796	.79424	.19349	4.06274	.01673	-.25850	-.34992	-.29764
4.768	15.040	263.59647	.90721	.23999	3.78025	.01717	-.27938	-.35500	-.30545
4.774	17.230	264.71611	1.01724	.29496	3.44880	.01764	-.28288	-.38557	-.31394
4.792	19.500	266.82156	1.13489	.36569	3.10345	.01850	-.30735	-.40212	-.32923
4.768	21.661	265.44154	1.23812	.45959	2.69470	.02016	-.34186	-.41767	-.35866
4.781	23.856	265.98551	1.30814	.55703	2.34844	.02228	-.37841	-.45982	-.39649
4.769	25.969	265.00812	1.36421	.64122	2.12752	.02423	-.40948	-.51403	-.43119
4.762	27.878	264.31096	1.33285	.68713	1.93975	.02712	-.47643	-.48165	-.48261
GRADIENT		-.32163	.04397	.00338	.37041	-.00009	.00192	.00458	.00154

RUN NO. 51/ 0 RN/L = 9.96 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	Q (PSF)	CL	CD	L/D	CAC	CPB	CPBM	CPSC
10.154	-2.290	577.26867	.11074	.08336	1.32846	.01851	-.28939	-.41099	-.32941
10.150	-.066	579.23193	.20648	.08734	2.36393	.01853	-.28997	-.41467	-.32970
10.171	2.370	582.31250	.31260	.09519	3.26384	.01828	-.28641	-.39510	-.32523
10.116	4.639	576.31405	.41630	.10752	3.87178	.01767	-.27954	-.39179	-.31437
10.112	6.918	576.87652	.51668	.12276	4.20890	.01741	-.28810	-.37529	-.30991
10.075	9.182	572.53835	.62242	.14428	4.31403	.0168	-.26673	-.34517	-.30010
10.154	11.487	582.62837	.72127	.17086	4.22135	.0172	-.26130	-.31998	-.30696
10.134	13.847	580.53428	.84056	.21101	3.98346	.01703	-.27649	-.31260	-.31952
10.063	16.283	576.19389	.96425	.26333	3.63414	.01781	-.27990	-.31982	-.31690
10.126	18.644	581.38190	1.08822	.33349	3.26316	.01893	-.29836	-.41650	-.33690
10.121	20.829	581.24485	1.18700	.41087	2.88897	.01989	-.33249	-.42518	-.35391
10.194	23.269	590.91874	1.29426	.51873	2.47577	.02233	-.39081	-.43455	-.35743
10.057	25.436	574.95050	1.37096	.62403	2.19699	.02402	-.42202	-.45494	-.42747
9.958	27.563	564.15565	1.38926	.69618	1.99555	.02596	-.43795	-.48584	-.46193
GRADIENT		.01196	.04427	.00348	.36974	-.00012	.00144	.00338	.00215

0A17, LPT138, ORB 3, (B19C7F5M4) (M07E23) (V7R3)

(RPPO19) (30 AUG 75)

REFERENCE DATA

XREF = 87.1940 56.1IN. XREF = 12.5770 INCHES
 LREF = 19.3545 INCHES YREF = .0000 INCHES
 PREF = 14.0502 ZREF = 6.0000 INCHES
 Z = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .254
 ELEVR = -11.800 AILRON = .000
 RUDDER = .000 BDFLAP = -14.250
 SPOBRK = 24.920

RUN NO. 52/ 0 RN/L = 4.63 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB
4.648	-2.822	.00491	-3.6005	.08273	.12078	-.00794	.00384	.00007	.04187
4.668	-.548	.00535	-.25471	.06646	.11892	-.00844	.00083	.00010	.04145
4.680	1.548	.00559	-.16586	.06786	.12113	-.00897	.00087	.00005	.04169
4.690	3.727	.00567	-.06477	.06215	.11963	-.00925	.00102	-.00044	.04081
4.622	5.936	.00523	.03395	.04330	.12447	-.00913	.00122	-.00020	.04059
4.653	6.043	.00531	.13843	.04140	.11990	-.00916	.00121	-.00035	.03925
4.663	10.205	.00486	.23602	.02601	.12283	-.00853	.00119	-.00064	.03990
4.634	12.368	.00484	.33915	.01247	.12414	-.00830	.00101	-.00075	.03930
4.589	14.560	.00475	.46494	-.00429	.12815	-.00836	.00101	-.00185	.04299
4.639	16.721	.00347	.57399	-.02090	.12206	-.00832	.00101	-.00185	.04310
4.622	19.020	.00300	.71432	-.03784	.12242	-.00724	.00170	-.00065	.04475
4.656	21.207	.00295	.82720	-.05011	.11237	-.00608	.00112	.00114	.04797
4.622	23.409	.00298	.96362	-.05579	.10791	-.00553	.00073	-.00110	.04962
4.635	25.572	.00261	1.06553	-.05847	.10348	-.00225	-.00082	-.00175	.05383
4.630	27.700	.00227	1.16653	-.05770	.10109	-.00068	-.00134	.00234	.06029
GRADIENT		.00012	.04484	-.00001	-.00006	-.00021	.00003	-.00007	-.00014

RUN NO. 73/ 0 RN/L = 10.12 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB
9.990	-3.129	.01219	-.38424	.08107	.12507	-.00878	.00077	.00024	.04341
9.999	-.819	.01127	-.27676	.06589	.12323	-.00849	.00094	.00032	.04322
9.978	1.450	.01144	-.17602	.06618	.12306	-.00855	.00089	.00025	.04441
10.021	1.739	.01041	-.07106	.06114	.12233	-.00803	.00098	.00015	.04512
9.979	6.087	.01034	.03553	.05222	.12442	-.00832	.00112	.00001	.04326
10.022	8.121	.00997	.13609	.03901	.12429	-.00814	.00117	-.00009	.04379
9.974	10.591	.00929	.24373	.02423	.12750	-.00788	.00121	-.00026	.04394
10.016	12.695	.00855	.34984	.00707	.12744	-.00729	.00114	-.00047	.04315
9.923	15.301	.00828	.48973	-.01189	.12979	-.00699	.00100	-.00028	.04419
10.010	17.548	.00641	.60156	-.02752	.12097	-.00454	.00030	-.00101	.04538
9.966	19.964	.00586	.74360	-.04241	.11421	-.00352	-.00011	-.00075	.04830
9.923	22.306	.00490	.89548	-.05431	.10746	-.00319	-.00110	-.00187	.05035
9.956	24.873	.00477	1.00483	-.05509	.09905	-.00201	-.00061	-.00318	.05587
10.128	27.073	.00363	1.13926	-.05666	.09038	-.00361	.00071	-.00232	.06141
10.125	29.263	.00231	1.22888	-.05404	.09808	-.00353	.00114	-.00076	.07037
GRADIENT		-.00023	.04548	-.00002	-.00037	.00010	.00003	-.00001	.00028

QAM17,LTPT138,ORB 3,(B19C7F5M4)(W107E23)(V7R5)

(ZPP019) (30 AUG 73)

REFERENCE DATA

SREF = 87.1580 58. IN. XMRP = 12.5770 INCHES
 LREF = 19.3545 INCHES YMRP = .0000 INCHES
 BREF = 14.0502 ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETER DATA

BETA = .000 MACH = .254
 ELEVTR = -11.800 AILRON = .000
 RUDDER = .000 BDFLAP = -14.250
 SPDBRK = 24.920

RUN NO. 52/ 0 RM/L = 4.63 GRADIENT INTERVAL = -5.00/ 5.00

RM/L	ALPHA	Q(PSF)	CL	CD	L/D	CAC	CFB	CFBM	CPSC
4.648	-2.822	265.43652	-3.5653	.06036	-4.43577	.01332	-.19512	-.30488	-.23694
4.668	-.548	267.95988	-.25406	.06890	-3.68758	.01311	-.19278	-.31028	-.23336
4.620	1.548	262.36203	-.16766	.06336	-2.64623	.01336	-.19707	-.30159	-.23766
4.650	3.727	266.14180	-.06867	.05781	-1.18789	.01300	-.19800	-.29375	-.23140
4.622	5.938	263.34169	.02815	.05752	.48938	.01314	-.19976	-.29533	-.23386
4.653	8.043	266.98298	.13127	.06036	2.17475	.01269	-.19755	-.27017	-.22577
4.663	10.205	268.24408	.22733	.06938	3.27642	.01270	-.19005	-.27864	-.22804
4.634	12.368	265.02456	.32861	.08482	3.87404	.01320	-.19693	-.29221	-.23490
4.589	14.560	259.97993	.45109	.11273	4.00141	.01370	-.20956	-.30408	-.24375
4.639	16.721	265.72480	.55573	.14513	3.82930	.01398	-.21737	-.31220	-.24878
4.602	19.020	261.38326	.68784	.19709	3.49000	.01462	-.24694	-.31640	-.26007
4.656	21.207	267.40930	.78931	.25252	3.12577	.01540	-.26299	-.34031	-.27398
4.622	23.409	263.62795	.92482	.33959	2.72334	.01534	-.29782	-.33828	-.27292
4.635	25.572	265.30878	.98640	.40718	2.42250	.01664	-.33421	-.35371	-.29612
4.630	27.700	265.02969	1.05966	.49116	2.15745	.01809	-.38057	-.37125	-.32197
GRADIENT		-.15208	.04370	-.01338	.49526	-.00003	-.00059	.00191	.00057

RUN NO. 53/ 0 RM/L = 10.12 GRADIENT INTERVAL = -5.00/ 5.00

RM/L	ALPHA	Q(PSF)	CL	CD	L/D	CAC	CFB	CFBM	CPSC
9.990	-3.129	572.92911	-.38034	.08196	-4.64064	.01391	-.20458	-.34498	-.24760
9.999	-.819	575.17411	-.27579	.06984	-3.94892	.01379	-.20559	-.32057	-.24539
9.978	1.450	572.65875	-.17764	.06170	-2.87894	.01431	-.20736	-.34414	-.25467
10.021	3.759	577.84722	-.07469	.05638	-1.32844	.01398	-.20457	-.35519	-.24879
9.979	6.087	573.50454	.02980	.05569	.53502	.01353	-.20415	-.31711	-.24568
10.022	8.321	578.69285	.12901	.05829	2.21309	.01383	-.20177	-.29422	-.24601
9.974	10.591	574.07401	.23512	.06862	3.42660	.01394	-.19388	-.30821	-.24805
10.016	12.895	579.53543	.33944	.08497	3.99499	.01384	-.21082	-.31321	-.24631
9.923	15.301	568.61653	.47551	.11776	4.03789	.01468	-.22708	-.32201	-.26115
10.010	17.548	579.12727	.58187	.15514	3.75061	.01492	-.23885	-.31896	-.26345
9.966	19.964	575.48329	.71339	.21403	3.33317	.01565	-.25772	-.34558	-.27844
9.923	22.306	570.72955	.84909	.28963	2.93159	.01639	-.27959	-.36641	-.29173
9.956	24.673	574.79156	.93609	.36940	2.53408	.01748	-.33094	-.39619	-.31098
10.128	27.073	594.83445	1.04022	.46806	2.22240	.01905	-.36733	-.41143	-.33894
10.125	29.263	596.08569	1.09847	.55354	1.98444	.02237	-.41617	-.45782	-.39801
GRADIENT		.53594	.04435	-.00371	.48104	.00003	-.00008	.00027	-.00056

QAL17, L1PT1136, CRB 3, (B19C7F5M4) (M1D7E23) (V7R5)

(RPP020) (30 AUG 73)

REFERENCE DATA

REF = 97.1960 98.1 IN. XREF = 12.5770 INCHES
 LREF = 19.3545 INCHES YREF = .0000 INCHES
 BREF = 14.0502 ZREF = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .253
 ELEVTR = 14.700 AIRLON = .000
 RUDDER = .000 BDFLAP = 13.750
 SPDRK = 24.920

RUN NO. 54/ 0 RV/L = 4.63 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB
4.582	-2.248	.00481	.16356	.08110	-.13248	-.00808	-.00016	-.00084	.04604
4.593	.080	.00434	.27328	.08177	-.13541	-.00568	-.00002	-.00094	.04749
4.606	2.121	.00463	.36727	.07794	-.13429	-.00643	.00021	-.00086	.04667
4.601	4.265	.00414	.46614	.06994	-.13692	-.00586	.00023	-.00104	.04857
4.601	6.524	.00458	.57330	.05791	-.13793	-.00688	.00047	-.00083	.04734
4.593	8.646	.00427	.67682	.04345	-.13912	-.00643	.00043	-.00173	.04804
4.597	10.760	.00403	.77147	.02637	-.13836	-.00629	.00052	-.00194	.05035
4.592	12.964	.00437	.86847	.00917	-.13545	-.00730	.00080	-.00160	.05265
4.584	15.099	.00364	.95448	-.00753	-.13538	-.00645	.00084	-.00159	.05239
4.576	17.364	.00396	1.12366	-.02438	-.13905	-.00672	.00072	-.00218	.05365
4.572	19.530	.00227	1.25313	-.03721	-.14101	-.00195	-.00067	-.00251	.05450
4.606	21.723	.00248	1.37210	-.03233	-.14409	-.00754	.00229	-.00107	.05881
4.578	23.950	.00602	1.50656	-.01654	-.15178	-.01723	.00484	.00357	.06817
4.601	26.122	.00910	1.60182	-.00955	-.15447	-.01755	.00256	.01637	.08069
4.634	28.090	-.00080	1.59352	-.00634	-.10726	-.00875	-.00424	.00406	.08465
GRADIENT		-.00006	.04589	-.00171	-.00057	-.00000	.00006	-.00002	.00031

RUN NO. 55/ 0 RV/L = 10.06 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB
10.077	-2.184	.00991	.16340	.08005	-.13135	-.00375	-.00012	-.00045	.04740
10.017	.107	.00975	.27138	.08028	-.13368	-.00582	-.00006	-.00053	.04671
10.097	2.429	.00912	.37452	.07572	-.13375	-.00581	.00020	-.00050	.04830
9.953	4.675	.00934	.48320	.06723	-.13655	-.00633	.00032	-.00075	.04653
10.053	6.978	.00881	.58685	.05590	-.13686	-.00644	.00062	-.00093	.05059
10.082	9.268	.00859	.69417	.03757	-.13725	-.00654	.00075	-.00109	.05214
9.983	11.592	.00790	.81493	.01908	-.13694	-.00647	.00089	-.00166	.05102
10.041	13.859	.00742	.92279	-.00032	-.13539	-.00648	.00107	-.00159	.05376
10.022	16.272	.00549	1.05576	-.01979	-.13836	-.00356	.00009	-.00192	.05357
10.036	18.565	.00292	1.18999	-.03303	-.14490	.00044	-.00126	-.00280	.05429
10.034	20.903	.00312	1.31542	-.03961	-.14960	.00247	-.00247	-.00361	.05688
10.041	23.269	.00431	1.43759	-.02911	-.15535	.00020	-.00164	-.00526	.06544
10.011	25.686	.00567	1.57439	-.02076	-.16478	.00041	-.00041	-.00033	.07797
10.062	27.617	.00948	1.64728	-.02026	-.14823	-.00691	.00041	.00452	.08096
GRADIENT		-.00010	.04640	-.00188	-.00068	-.00007	.00007	-.00004	.00004

0417, LTP1138, CRB 3, 0319C77944 (N07023) (V783)

(ZPP080) (30 AUG 73)

REFERENCE DATA

SRCP = 87.1560 IN. 100P = 12.5770 INCHES
LREF = 19.3545 INCHES 100P = .0000 INCHES
SRCP = 14.0502 200P = 6.0000 INCHES
SCALE = .0150 SCALE

BETA = .000 MACH = .853
ELEVTR = 14.700 AIRLON = .000
RULYER = .000 20FLAP = 13.750
SPD/RK = 24.920

PARAMETRIC DATA

RUN NO. 94/ 0 RUL = 4.03 GRADIENT INTERVAL = -5.00/ 5.00

RUL	ALPHA	8 (P/ST)	CL	CD	L/D	CAC	CPB	CPBM	CPSC
4.902	-2.248	282.92345	.1881	.07454	2.25206	.01471	-.23769	-.33726	-.26304
4.993	.050	284.18823	.27325	.08167	3.33782	.01516	-.6704	-.33840	-.28861
4.808	2.121	286.00798	.36413	.09148	3.98036	.01508	-.24045	-.35807	-.28430
4.801	4.285	285.30878	.45961	.10457	4.39504	.01511	-.25707	-.34138	-.28883
4.801	6.324	285.44988	.56500	.12267	4.5841	.01524	-.24554	-.33745	-.27123
4.993	8.646	284.48843	.68280	.14488	4.57136	.01490	-.23978	-.34022	-.28505
4.997	10.780	285.30961	.75286	.17044	4.41735	.01651	-.25770	-.35969	-.29379
4.982	12.964	284.81052	.86377	.20825	4.14775	.01614	-.25630	-.35888	-.28719
4.944	15.099	283.77107	.98211	.25178	3.82128	.01661	-.25510	-.36888	-.29596
4.976	17.384	282.92351	1.07482	.31246	3.45527	.01701	-.26802	-.35891	-.30275
4.972	19.530	282.64829	1.19348	.38365	3.10923	.01712	-.27956	-.36659	-.30486
4.806	21.723	286.43327	1.28883	.47779	2.89289	.01855	-.31911	-.41272	-.30000
4.978	23.950	283.21374	1.36355	.59446	2.31959	.02170	-.37326	-.50032	-.36614
4.801	26.122	286.01824	1.44241	.69668	2.07040	.02504	-.44250	-.58279	-.44554
4.834	28.080	289.80086	1.40861	.74472	1.89172	.02795	-.49460	-.58917	-.49196
GRADIENT		.41429	.04443	.00459	.32525	.00004	.00128	-.00000	-.00074

RUN NO. 55/ 0 RUL = 10.06 GRADIENT INTERVAL = -5.00/ 5.00

RUL	ALPHA	8 (P/ST)	CL	CD	L/D	CAC	CPB	CPBM	CPSC
10.077	-2.164	578.36736	.18834	.07377	2.25488	.01523	-.23307	-.32978	-.27108
10.017	.107	572.48597	.27123	.08079	3.35739	.01588	-.27732	-.32882	-.27181
10.097	2.429	581.73755	.37097	.09153	4.05312	.01583	-.29729	-.34281	-.27819
9.953	4.675	565.75861	.47612	.10839	4.47514	.01534	-.24820	-.31205	-.27296
10.053	6.978	577.81861	.57596	.12479	4.61322	.01645	-.24551	-.36888	-.29272
10.082	9.268	579.50134	.67905	.14888	4.58115	.01675	-.28887	-.39190	-.29808
9.983	11.592	571.37395	.79448	.18244	4.35478	.01613	-.25989	-.35787	-.28705
10.041	13.859	577.83134	.88801	.22073	4.05937	.01688	-.28859	-.40877	-.29699
10.022	16.272	576.42281	1.01901	.27663	3.68102	.01633	-.24767	-.36044	-.29086
10.038	18.585	578.94671	1.13910	.34805	3.29171	.01725	-.28308	-.37484	-.30703
10.054	20.903	580.49621	1.24297	.43233	2.87508	.01834	-.31950	-.40895	-.32626
10.041	23.288	579.85732	1.33197	.54163	2.45919	.02085	-.37078	-.49282	-.38739
10.011	25.686	575.75011	1.42781	.66371	2.15128	.02592	-.44683	-.54142	-.46114
10.082	27.817	581.92041	1.48838	.75078	1.95513	.02588	-.48377	-.52504	-.48059
GRADIENT		-1.23508	.04494	.00474	.32151	.00003	.00104	.00180	-.00033

0A17,LTPT138,ORB 3,(B19C7F5M4)(W107E23)(VTR5)

(RPP021) (30 AUG 73)

PARAMETRIC DATA

BETA = 7.500 MACH = .246
ELEVTR = .000 AILRON = .000
RUDDER = .000 BOFLAP = -14.250
SPOBRK = 24.920

REFERENCE DATA

SREF = 87.1550 SQ.IN. XMRP = 12.5770 INCHES
LREF = 19.3545 INCHES YMRP = .0000 INCHES
BREF = 14.0502 ZMRP = 6.0000 INCHES
SCALE = .0150 SCALE

RUN NO. 59/ 0 RV/L = 2.30 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB
2.396	-2.550	5.03663	-19503	.05809	.04626	-.13638	.01324	.00018	.04514
2.382	-.361	5.04263	-.08547	.05809	.04167	-.13991	.01324	-.00188	.04403
2.386	1.680	5.04189	-.00392	.05557	.04465	-.14318	.01500	-.00391	.04373
2.385	3.641	5.03336	.09505	.05028	.04799	-.14339	.01471	-.00495	.04280
2.385	5.990	5.01947	.19308	.04303	.04714	-.14578	.01422	-.00709	.04296
2.379	7.986	4.99994	.29025	.03224	.04593	-.14563	.01356	-.00968	.04433
2.382	10.173	4.97174	.39384	.01636	.04635	-.14569	.01427	-.01332	.04357
2.380	12.347	4.93870	.51802	-.00056	.04209	-.14799	.01425	-.01690	.04449
2.386	14.495	4.89797	.62379	-.01794	.04102	-.14210	.01247	-.01891	.04450
2.366	16.596	4.85379	.74516	-.03265	.03951	-.13856	.00986	-.01874	.04585
1.382	18.819	4.80140	.90623	-.04139	.02405	-.13934	.00944	-.01744	.04837
1.377	20.947	4.74472	1.04670	-.05978	.01118	-.13135	.00430	-.01437	.05296
GRADIENT		-.00076	.04489	-.00094	.00032	-.00086	-.00009	-.00082	-.00035

RUN NO. 56/ 0 RV/L = 4.69 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB
4.690	-2.620	7.58533	-.18233	.05356	.03846	-.14704	.01528	-.00058	.04751
4.689	-.380	7.59197	-.07973	.05599	.03771	-.14821	.01546	-.00280	.04679
4.681	1.792	7.58949	.01754	.05501	.03700	-.15084	.01570	-.00490	.04484
4.702	3.945	7.57766	.11284	.04925	.03921	-.15106	.01563	-.00633	.04483
4.703	6.180	7.55453	.21691	.04109	.03969	-.14986	.01500	-.00827	.04542
4.685	8.381	7.52056	.31985	.02971	.04032	-.14749	.01431	-.01054	.04626
4.730	10.600	7.48041	.42921	.01274	.03931	-.14818	.01471	-.01360	.04713
4.689	12.679	7.43005	.52907	-.00394	.03963	-.14832	.01513	-.01658	.04571
4.685	14.930	7.36721	.65065	-.02387	.03842	-.14678	.01475	-.01816	.04504
4.659	17.243	7.29596	.80001	-.04093	.03081	-.14121	.01128	-.01865	.04782
4.661	19.385	7.21848	.92878	-.04928	.01704	-.13276	.00790	-.01772	.05034
4.709	21.616	7.13478	1.07436	-.05892	.00798	-.12894	.00509	-.01706	.05349
4.691	23.832	7.03813	1.20906	-.08053	.00143	-.13749	.00994	-.01328	.05822
GRADIENT		-.00115	.04495	-.00063	.00007	-.00067	.00006	-.00089	-.00046

OA17, LTP1138, ORB 3, (B19C775M4) (M10TE23) (V7R3)

(RPP021) (30 AUG 75)

REFERENCE DATA

SREF = 87.1560 SQ. IN. XMRP = 12.3770 INCHES
 LREF = 19.3545 INCHES YMRP = .0000 INCHES
 BREF = 14.0502 ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = 7.500 MACH = .248
 ELEVTR = .000 AILRON = .000
 RUDDER = .000 BDFLAP = -14.250
 SPDGRK = 24.320

RUN NO. 57/ 0 RV/L = 10.32 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB
10.206	-2.751	5.19649	-.18494	.05049	.03552	-.14582	.01370	.00721	.04959
10.222	-.425	5.20233	-.08009	.05315	.03454	-.14701	.01391	-.00234	.04831
10.208	1.834	5.19964	.02133	.05137	.03416	-.14770	.01431	-.00412	.04695
10.212	4.120	5.19186	.12455	.04557	.03484	-.14859	.01441	-.00618	.04666
10.218	6.416	5.17864	.23127	.03582	.03520	-.14851	.01449	-.00826	.04598
10.190	8.729	5.15430	.34193	.02234	.03523	-.14825	.01426	-.01069	.04825
10.199	11.003	5.12600	.45050	.00532	.03623	-.14829	.01472	-.01362	.04640
10.166	13.431	5.06993	.57891	-.01447	.03236	-.15038	.01551	-.01598	.04783
10.195	15.736	5.04912	.70308	-.03363	.03004	-.14996	.01378	-.01708	.04811
10.158	18.107	4.99908	.84416	-.05149	.02496	-.13988	.01068	-.01798	.05071
10.228	20.568	4.94038	.97633	-.06535	.02165	-.13007	.00753	-.02377	.05817
10.319	22.840	4.88894	1.11313	-.07310	.01216	-.12719	.00554	-.02446	.05748
GRADIENT		-.00073	.04503	-.00072	-.00011	-.00037	.00011	-.00093	-.00036

RUN NO. 58/ 0 RV/L = 11.84 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB
11.868	-2.809	5.21316	-.18565	.04941	.03528	-.14588	.01364	.00040	.04978
11.997	-.466	5.21909	-.08065	.05228	.03405	-.14877	.01390	-.00190	.04877
11.851	1.823	5.21764	.02200	.05039	.03377	-.14902	.01430	-.00407	.04820
11.862	4.172	5.20898	.12737	.04448	.03449	-.14922	.01442	-.00601	.04853
11.871	6.548	5.19394	.23894	.03423	.03412	-.14958	.01449	-.00829	.04741
11.843	8.813	5.17056	.34400	.02127	.03444	-.14839	.01413	-.01051	.04648
11.869	11.177	5.14188	.45689	.00344	.03447	-.14891	.01474	-.01381	.04973
11.820	13.482	5.10769	.58060	-.01568	.03270	-.15117	.01549	-.01600	.04693
11.853	15.907	5.08534	.71293	-.03500	.02980	-.14671	.01337	-.01688	.04824
11.844	18.309	5.01374	.84983	-.05242	.02529	-.13841	.01013	-.01763	.05145
11.813	20.836	4.93666	.98552	-.06789	.02014	-.13018	.00676	-.02329	.05393
11.844	22.914	4.88232	1.10289	-.07571	.01828	-.12171	.00481	-.02843	.05712
GRADIENT		-.00060	.04484	-.00072	-.00011	-.00053	.00012	-.00093	-.00019

DATE 15 NOV 73

TABULATED SOURCE DATA - OA17

PAGE 53

OA17, LIFT13, ORB 3, (B19C7F5M4) (M10TE23) (V7R5)

(ZPP021) (30 AUG 73)

REFERENCE DATA

SREF = 87.1560 SQ. IN. XMRP = 12.5770 INCHES
 LREF = 19.3545 INCHES YMRP = .0000 INCHES
 BREF = 14.0502 ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = 7.500 MACH = .248
 ELEVTR = .000 AILRON = .000
 RUDDER = .000 BOFLAP = -14.250
 SPDRK = 24.920

RUN NO. 56/ 0 RN/L = 2.38 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	Q (PSF)	CL	CD	L/D	CAC	CPB	CPBM	CPSC
2.396	-1.550	133.11392	-1.9234	.06471	-2.97210	.01482	-.23106	-.30135	-.26553
2.382	-.361	131.57143	-.08311	.05863	-1.45157	.01448	-.23345	-.29734	-.25767
2.366	1.690	132.13276	-.00355	.05545	-.10006	.01444	-.23144	-.29267	-.25692
2.385	3.841	132.13367	.09147	.05653	1.61800	.01405	-.22871	-.30256	-.25009
2.385	5.990	132.13459	.18753	.06294	2.97952	.01405	-.23518	-.30666	-.25007
2.379	7.966	131.57327	.28295	.07225	3.91637	.01477	-.23309	-.31345	-.26280
2.382	10.173	131.99427	.36476	.08566	4.49153	.01439	-.23542	-.30662	-.25613
2.360	12.347	131.85465	.50615	.11023	4.59196	.01454	-.23529	-.31033	-.25877
2.366	14.495	132.55645	.60843	.13877	4.38437	.01456	-.23946	-.29299	-.25906
2.366	16.596	132.55737	.72344	.18155	3.98477	.01494	-.24551	-.27590	-.26580
2.362	18.619	132.27674	.87114	.25316	3.44105	.01563	-.26021	-.29747	-.27816
2.377	20.947	131.85667	.99174	.33705	2.94239	.01703	-.28340	-.32486	-.30312
GRADIENT		-.11421	.04391	-.00131	.71296	-.00013	.00043	.00004	.00223

RUN NO. 56/ 0 RN/L = 4.69 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	Q (PSF)	CL	CD	L/D	CAC	CPB	CPBM	CPSC
4.690	-2.620	264.89985	-1.17969	.06184	-2.90566	.01566	-.24534	-.32466	-.27861
4.689	-.390	265.17999	-.07936	.05652	-1.40411	.01508	-.23965	-.33536	-.26827
4.681	1.792	264.20046	.01581	.05553	.28467	.01459	-.24941	-.31425	-.25953
4.702	3.945	264.66477	.10916	.05690	1.91893	.01458	-.24134	-.33023	-.25947
4.703	6.180	267.14485	.21123	.06420	3.29021	.01478	-.24902	-.33510	-.26291
4.685	8.361	265.32414	.31210	.07601	4.10615	.01504	-.25564	-.33416	-.26760
4.730	10.600	270.64604	.41954	.09148	4.56629	.01561	-.24711	-.32607	-.27763
4.689	12.679	265.74639	.51704	.11228	4.80501	.01504	-.25876	-.29165	-.26764
4.685	14.930	263.58290	.63484	.14456	4.39104	.01493	-.24925	-.29304	-.26608
4.659	17.245	262.94357	.77619	.19805	3.91922	.01592	-.24906	-.31263	-.27620
4.661	19.385	263.08469	.89248	.26180	3.40905	.01597	-.27124	-.32326	-.28415
4.708	21.616	266.69136	1.02052	.34099	2.99277	.01707	-.28872	-.33579	-.30372
4.691	23.832	266.86993	1.13043	.43316	2.60973	.01849	-.30715	-.36143	-.32900
GRADIENT		.22309	.04399	-.00073	.73822	-.00017	.00010	.00021	.00303

OA17, LPT1138, ORB 3, (B19C7F3M4) (M107E23) (V7R5)

(ZPP021) (30 AUG 75)

REFERENCE DATA

SREF = 97.1560 98.1IN. XMRP = 12.9770 INCHES
 LREF = 19.3545 INCHES YMRP = .0000 INCHES
 BREF = 14.0502 ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = 7.500 MACH = .248
 ELEVTR = .000 AILRON = .000
 RUDDER = .000 BDFLAP = -14.250
 SPDBRK = 24.920

RUN NO. 57/ 0 RN/L = 10.32 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	Q (PSF)	CL	CD	L/D	CAC	CPB	CPBM	CPSC
10.206	-2.751	574.90236	-1.18231	.05930	-3.07407	.01655	-.24506	-.33712	-.29450
10.222	-.425	576.74841	-.07969	.05374	-1.48276	.01534	-.26230	-.32638	-.27301
10.208	1.834	575.91264	.01968	.05202	.37829	.01964	-.23480	-.33231	-.28179
10.212	4.120	576.89153	.12095	.05440	2.22345	.01529	-.25176	-.32634	-.27216
10.218	6.416	577.46499	.22582	.06144	3.67531	.01537	-.25596	-.34047	-.27745
10.190	8.729	575.50712	.33458	.07397	4.52322	.01572	-.25439	-.35470	-.27970
10.199	11.003	577.46599	.44121	.09120	4.83763	.01546	-.25686	-.34402	-.27513
10.166	13.431	574.39482	.56644	.12039	4.70492	.01590	-.25428	-.30859	-.28293
10.195	15.756	578.46382	.68985	.15931	4.33237	.01576	-.27316	-.32748	-.28049
10.156	18.107	574.40858	.81836	.21342	3.83444	.01640	-.26613	-.33510	-.29188
10.228	20.568	583.09133	.93705	.28182	3.32497	.01764	-.30807	-.33040	-.31363
10.319	22.840	593.18824	1.05422	.36470	2.89069	.01834	-.30453	-.33891	-.32628
GRADIENT		.27819	.04412	-.00072	.77604	-.00014	.00039	.00123	.00256

RUN NO. 58/ 0 RN/L = 11.64 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	Q (PSF)	CL	CD	L/D	CAC	CPB	CPBM	CPSC
11.868	-2.809	621.81881	-.18301	.05844	-3.13131	.01636	-.25200	-.33768	-.29105
11.897	-.466	623.06388	-.00122	.05293	-1.51563	.01586	-.26930	-.32634	-.28225
11.851	1.823	620.27532	.02138	.05107	.39912	.01621	-.24180	-.31976	-.28844
11.862	4.172	621.82597	.12379	.05361	2.30924	.01592	-.26143	-.33659	-.28321
11.871	6.548	623.23808	.23347	.06126	3.81147	.01546	-.26272	-.30520	-.27510
11.843	8.813	620.98464	.33668	.07373	4.56660	.01580	-.27644	-.36006	-.28118
11.869	11.177	624.22841	.44756	.09194	4.86804	.01667	-.24690	-.35123	-.29655
11.820	13.482	619.02034	.56850	.11997	4.73872	.01551	-.27056	-.29911	-.27603
11.853	15.907	623.24787	.69522	.16174	4.29846	.01613	-.26721	-.31213	-.28698
11.844	18.309	622.12218	.82328	.21719	3.79054	.01658	-.28557	-.29976	-.29501
11.813	20.636	619.16469	.94615	.28398	3.33173	.01727	-.29080	-.31525	-.30736
11.844	22.914	623.82047	1.04534	.35968	2.90832	.01822	-.30743	-.32932	-.32423
GRADIENT		-.20181	.04395	-.00070	.78490	-.00004	-.00010	.00043	.00075

DATE 15 NOV 73

TABULATED SOURCE DATA - 0417

PAGE 95

0417,LTPT135,008 3, 0821CT7944) (M107223) (V7815)

08P022) (30 AUG 73)

REFERENCE DATA

8007 = 87.1580 88.1N. 100P = 12.5770 INCHES
 L007 = 19.3545 INCHES 100P = .0000 INCHES
 8007 = 14.0702 100P = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = 7.500 MACH = .252
 ELEVTR = .000 AIRLON = .000
 R000R = .000 800LAP = -14.250
 8P000K = 24.920

RUN NO. 61/ 0 RM/L = 4.77 GRADIENT INTERVAL = -5.00/ 5.00

RM/L	ALPHA	BETA	CA	CLM	CY	CYN	CEL	CAB
4.791	-2.522	7.56828	.03322	.03973	-1.4819	.01350	-.00104	.04773
4.809	-1.289	7.56303	.03927	.04046	-1.4830	.01377	-.00330	.04805
4.793	1.874	7.56879	.03977	.04115	-1.5014	.01397	-.00341	.04449
4.799	4.151	7.57406	.04790	.04227	-1.4883	.01375	-.00713	.04472
4.800	6.282	7.55260	.04021	.04453	-1.4306	.01316	-.00864	.04536
4.801	8.513	7.51855	.02753	.04421	-1.4691	.01442	-.01111	.04796
4.793	10.640	7.47727	.01176	.04436	-1.4789	.01316	-.01439	.04595
4.790	12.842	7.42557	.00688	.04429	-1.4818	.01368	-.01736	.04508
4.786	15.064	7.36408	.00263	.04161	-1.4739	.01359	-.01913	.04460
4.786	17.243	7.29379	.00111	.03459	-1.3642	.01217	-.01685	.04797
4.786	19.525	7.21362	-.05126	.02130	-1.3132	.00608	-.01671	.05166
4.775	21.645	7.12801	-.08107	.02019	-1.2216	.00416	-.02040	.05288
GRADIENT		-.00185	-.00078	.00137	-.00012	.00004	-.00092	-.00048

RUN NO. 60/ 0 RM/L = 10.25 GRADIENT INTERVAL = -5.00/ 5.00

RM/L	ALPHA	BETA	CA	CLM	CY	CYN	CEL	CAB
10.301	-2.674	7.66834	.09074	.03905	-1.4803	.01373	.00005	.04947
10.284	-1.308	7.70121	.05303	.03968	-1.4630	.01408	-.00235	.04847
10.292	1.965	7.66884	.05090	.03936	-1.4673	.01434	-.00444	.04880
10.288	4.316	7.68439	.04461	.03978	-1.4881	.01481	-.00883	.04658
10.278	6.678	7.65938	.03466	.03957	-1.4789	.01465	-.00990	.04757
10.282	8.956	7.62321	.02169	.03943	-1.4603	.01411	-.01122	.04911
10.245	11.226	7.56207	.00432	.03945	-1.4734	.01505	-.01444	.04675
10.251	13.558	7.53101	-.01469	.03748	-1.4870	.01378	-.01656	.04629
10.249	16.017	7.46414	-.03462	.03442	-1.4319	.01378	-.01780	.04794
10.278	18.258	7.39843	-.05096	.02974	-1.3641	.01064	-.01630	.05009
10.253	20.650	7.31174	-.06499	.02629	-1.2913	.00795	-.02377	.05287
10.247	23.097	7.21400	-.07432	.02227	-1.1995	.00465	-.02560	.05595
GRADIENT		-.00172	-.00065	-.00005	-.00034	.00013	-.00095	-.00045

REFERENCE DATA

REF = 37.1860 84.14. 100P = 12.5770 INCHES
LREF = 19.3545 INCHES 100P = .0000 INCHES
WREF = 14.0502 200P = 6.0000 INCHES
SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = 7.500 MACH = .898
ELEVTR = .000 AIRSON = .000
RUDDER = .000 SDPLAP = -14.880
SPORRK = 24.980

RUN NO. 61/ 0 RV/L = 4.77 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	Q (PSE)	CL	CD	L/D	CAC	CPB	CPM	CPSC
4.791	-2.922	264.94722	-1.18120	.06125	-2.95610	.01561	-23660	-32050	-26186
4.808	-2.299	267.18891	-0.7947	.05567	-1.42740	.01516	-23732	-31180	-26979
4.793	1.874	265.64882	.01801	.05452	.29364	.01479	-27935	-29401	-26350
4.799	4.151	266.49047	.11889	.05665	2.09868	.01448	-24268	-32085	-29782
4.800	6.262	266.49147	.21240	.06375	3.33153	.01472	-24386	-33459	-26185
4.801	8.513	266.63359	.31918	.07562	4.22101	.01528	-24101	-35433	-27185
4.793	10.640	265.93305	.41857	.09060	4.62009	.01493	-24282	-31724	-26960
4.790	12.842	265.93305	.52614	.11306	4.63274	.01480	-25789	-29634	-28906
4.786	15.064	265.51470	.64185	.14599	4.39641	.01466	-24484	-29008	-26085
4.786	17.243	265.65462	.76241	.19356	3.93637	.01557	-26194	-32215	-27710
4.786	19.325	265.79694	.89647	.26350	3.40214	.01612	-27405	-34776	-26663
4.775	21.645	264.39859	1.00720	.33400	3.01560	.01699	-27876	-31658	-30234
GRADIENT		.14095	.04489	-.00067	.76150	-.00020	-.00092	.00072	.00049

RUN NO. 60/ 0 RV/L = 10.25 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	Q (PSE)	CL	CD	L/D	CAC	CPB	CPM	CPSC
10.301	-2.674	577.93459	-1.18028	.05922	-3.04439	.01645	-24675	-33102	-29264
10.284	-3.309	576.53685	-0.79223	.05344	-1.40775	.01565	-24156	-34694	-26201
10.292	1.905	577.68055	.02567	.05185	.49913	.01530	-23743	-32883	-27224
10.289	4.316	575.83943	.12957	.05472	2.36802	.01520	-24092	-32856	-27051
10.278	6.678	577.24437	.23809	.06276	3.76180	.01320	-24454	-34447	-27055
10.262	8.936	576.40886	.33973	.07558	4.49460	.01618	-24860	-36476	-26785
10.245	11.228	574.86580	.44827	.09336	4.80036	.01509	-24859	-31745	-26850
10.251	13.558	575.57034	.56787	.12162	4.66918	.01547	-25452	-30275	-27535
10.249	16.017	576.13578	.69641	.16389	4.24914	.01564	-26203	-31565	-26190
10.278	18.256	579.91701	.81423	.21496	3.78781	.01599	-26016	-32006	-26449
10.253	20.650	577.11948	.93772	.28394	3.30232	.01699	-29095	-30600	-30236
10.247	23.097	576.70122	1.05180	.36778	2.85989	.01835	-.00060	-37410	-32644
GRADIENT		-.22283	.04430	-.00065	.77976	-.00016	.00093	.00091	.00327

QAI7,LTPT136,CB82A,810C50774 NS) (M87E18) (VSR3)

(RPP023) (16 OCT 75)

REFERENCE DATA

SREF = 97.1500 IN. XREF = 13.1400 INCHES
 LREF = 19.8245 INCHES YREF = .0000 INCHES
 BREF = 14.0902 INCHES ZREF = 6.0000 INCHES
 SCALE = .0150 SCALE

BETA = .000 MACH = .254
 ELEVTR = .000 AIRRON = .000
 RUDDER = .000 BOPLAP = -14.250
 SPDRK = 54.980

PARAMETRIC DATA

RUN NO. 101/ 0 RV/L = 4.73 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CSL	CAS	CMR	CMET
4.764	-2.570	.00172	-1.1866	.09747	.04401	-.00305	.00045	-.00256	.05440	.02823	-.07415
4.745	-1.459	.00192	-.06893	.09924	.04307	-.00322	.00039	-.00265	.05364	.02505	-.07528
4.744	-.350	.00202	-.01681	.09984	.04261	-.00322	.00032	-.00267	.05367	.02353	-.07169
4.745	.709	.00222	.03349	.09916	.04206	-.00349	.00032	-.00274	.05368	.02451	-.07138
4.790	1.837	.00249	.08276	.09732	.04184	-.00372	.00038	-.00280	.05331	.02497	-.06174
4.790	3.873	.00278	.18120	.09126	.04146	-.00417	.00030	-.00289	.05349	.02431	-.06193
4.790	6.088	.00332	.27773	.07901	.04316	-.00511	.00042	-.00274	.05170	.02425	-.0742
4.725	8.365	.00417	.38394	.06501	.04478	-.00627	.00040	-.00286	.04954	.02356	-.04549
4.753	10.441	.00467	.48346	.05166	.04607	-.00673	.00031	-.00278	.04826	.02326	-.08956
4.712	12.634	.00551	.59977	.03758	.04477	-.00757	.00006	-.00196	.05174	.02330	-.01011
4.760	14.772	.00614	.71887	.02435	.04036	-.00793	-.00014	-.00124	.05202	.02319	.01176
4.744	16.957	.00741	.84811	.01440	.03573	-.00791	-.00118	-.00021	.05228	.02289	.02959
4.790	19.271	.00849	.98045	.01967	.03080	-.01035	-.00073	.00327	.05785	.00014	.05436
4.735	21.350	.00759	1.06542	.03420	.02654	-.01267	.00135	-.00136	.05190	.02953	.09950
4.741	23.526	.01178	1.18920	.03340	.01987	-.01922	.00153	.00074	.06641	.02761	.11848
4.707	25.661	.01341	1.25966	.02452	.02427	-.01696	-.00017	.00433	.07512	.03322	.13255
4.750	27.780	.01751	1.35827	.02051	.04410	-.02220	-.00173	.01246	.06199	.03423	.12696
		.00016	.04576	-.00097	-.00737	-.00017	-.00002	-.00005	-.00052	-.00019	.00155

RUN NO. 102/ 0 RV/L = 10.00 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CSL	CAS	CMR	CMET
10.307	-2.613	.00473	-.12224	.09545	.04471	-.00327	.00023	-.00282	.05383	.01915	-.07544
10.305	-1.440	.00494	-.06816	.09747	.04407	-.00322	.00014	-.00283	.05311	.02014	-.07427
10.295	-.270	.00804	-.01506	.09791	.04345	-.00362	.00010	-.00289	.05216	.01967	-.07293
10.234	.687	.00825	.03708	.09790	.04287	-.00366	.00004	-.00284	.05260	.01881	-.07061
10.285	2.028	.00883	.08954	.09535	.04251	-.00416	.00003	-.00299	.05327	.01956	-.06832
10.256	4.322	.00780	.19803	.08713	.04267	-.00499	.00012	-.00300	.05145	.01952	-.06363
10.234	6.657	.00959	.29936	.07521	.04501	-.00601	.00010	-.00295	.05271	.01919	-.05332
10.187	8.826	.01035	.40266	.06209	.04401	-.00649	.00007	-.00307	.05037	.02007	-.04062
10.181	11.180	.01200	.51571	.04740	.04428	-.00743	.00001	-.00247	.05055	.02031	-.02329
10.201	13.599	.01398	.64697	.03257	.04041	-.00827	-.00020	-.00184	.05002	.02124	.00206
10.178	15.828	.01611	.79311	.03689	.02517	-.00766	-.00078	-.00045	.05255	.02296	.03003
10.156	18.120	.01477	.98697	.04253	.02723	-.00766	-.00093	-.00226	.05781	.02459	.06254
10.119	20.435	.01707	1.02506	.04458	.01787	-.01036	-.00033	.00105	.06179	.02655	.09697
10.078	22.737	.01642	1.16355	.03783	.00709	-.00873	-.00113	.00236	.06468	.02779	.11182
10.058	25.184	.01429	1.34327	.02782	.00358	-.00617	-.00189	.00037	.07123	.02833	.12509
9.999	27.409	.00991	1.39806	.02479	.03271	-.00679	.00001	-.00969	.07667	.02035	.10668
		.00047	.04532	-.00119	-.00029	-.00025	-.00002	-.00003	-.00019	-.00002	.00174

GRADIENT

QAL7, LPT139, QAL7A, QAL7C, QAL7D, QAL7E, QAL7F, QAL7G, QAL7H, QAL7I, QAL7J, QAL7K, QAL7L, QAL7M, QAL7N, QAL7O, QAL7P, QAL7Q, QAL7R, QAL7S, QAL7T, QAL7U, QAL7V, QAL7W, QAL7X, QAL7Y, QAL7Z

(ZPP022) (16 OCT 73)

REFERENCE DATA

REF = 87.1360 IN. 100P = 13.1480 INCHES
LMT = 19.8245 INCHES 100P = .0000 INCHES
REF = 14.0802 INCHES 100P = 6.0000 INCHES
SCALE = .0190 SCALE

BETA = .000 MACH = .834
ELFTR = .000 AIRLON = .000
RUDDER = .000
SPDRK = 54.920

PARAMETRIC DATA

RUN NO. 101/ 0 RN/L = 4.75 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	CL	CD	L/D	CAC	CPB	OEL	OED	CPC	CPVT	CPW
4.704	-2.570	-1.1417	.10289	-1.11181	.00047	-3.3586	-0.04866	-0.02329	-3.2757	-7.7790	.01533
4.745	-1.459	-0.8436	.10091	-1.03797	.00043	-3.3241	-0.04866	-0.02440	-3.2444	-6.6694	.01761
4.744	-3.30	-0.01600	.09993	-1.0007	.00042	-3.3134	-0.04873	-0.02294	-3.2391	-7.1395	.01347
4.745	.709	.03226	.09937	.32403	.00039	-3.3140	-0.04839	-0.02199	-3.2083	-7.6435	.01393
4.730	1.637	.07929	.09982	.79659	.00107	-3.2908	-0.04636	-0.02039	-3.1008	-7.5390	.00836
4.730	3.973	.17444	.10360	1.68365	.00001	-3.1169	-0.04746	-0.01647	-3.1151	-7.1281	-0.03303
4.730	6.086	.26779	.10802	2.47911	.00093	-3.1919	-0.04485	-0.01257	-3.0266	-6.9090	-0.01564
4.725	8.563	.37040	.12018	3.08211	.00021	-3.0566	-0.03777	-0.00771	-3.0214	-7.2330	-0.03993
4.733	10.441	.46812	.13642	3.36749	-0.0014	-2.9790	-0.02776	-0.00181	-3.0045	-6.90037	-0.06449
4.712	12.634	.57703	.16785	3.43771	.00068	-3.1941	-0.01534	-0.00823	-3.0727	-7.4269	-0.12375
4.760	14.772	.68690	.20684	3.35057	.00019	-3.2115	-0.00543	-0.00719	-3.1771	-7.1722	-0.17057
4.744	16.957	.80704	.26112	3.09067	.00071	-3.2272	.00435	.02324	-3.1015	-7.7508	-0.21533
4.730	19.271	.91902	.34216	2.68595	.00192	-3.35713	.01704	.03732	-3.2295	-7.5443	-0.29615
4.735	21.350	.97965	.41974	2.33441	.00203	-3.36215	.05615	.05615	-3.4597	-7.9996	-0.39005
4.741	23.526	1.07702	.50531	2.13140	.00242	-4.0997	.04932	.08916	-3.6683	-8.3243	-0.48305
4.707	25.661	1.16104	.59500	1.96469	.00441	-4.5139	.06446	.06809	-3.7285	-8.4366	-0.49724
4.730	27.780	1.19217	.65120	1.85071	.00621	-5.0619	.06352	.08344	-3.9573	-8.6366	-0.50620
GRADIENT		.04404	.00012	.42905	-0.0002	.00323	.00021	.00133	.00264	-0.00410	-0.00299

RUN NO. 102/ 0 RN/L = 10.00 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	CL	CD	L/D	CAC	CPB	OEL	OED	CPC	CPVT	CPW
10.307	-2.613	-1.1176	.10093	-1.16676	-0.00016	-3.2899	-0.04936	-0.02608	-3.3141	-7.3029	.00697
10.305	-1.440	-0.8569	.09915	-1.08256	.00015	-3.2799	-0.04902	-0.02325	-3.2515	-6.6873	.00636
10.295	-2.270	-0.01480	.09796	-1.14999	-0.00032	-3.2196	-0.04871	-0.02422	-3.2766	-7.0265	.00731
10.234	.667	.03558	.09786	.36356	.00063	-3.2475	-0.04824	-0.02236	3.1351	-6.8322	.00241
10.293	2.028	.08611	.09846	.87463	.00015	-3.2864	-0.04782	-0.02070	3.2614	-6.8795	-0.00056
10.234	4.322	.18492	.10135	1.82458	.00035	-3.1782	-0.04652	-0.01711	-3.1137	-7.0073	-0.01170
10.167	6.626	.28636	.12314	2.63627	.00067	-3.2539	-0.04099	-0.01233	-3.0968	-6.6931	-0.02889
10.181	11.180	.49679	.14631	3.39535	.00036	-3.1098	-0.03349	-0.00712	-2.9393	-6.8369	-0.03260
10.201	13.599	.62118	.18377	3.36015	.00021	-3.1206	-0.02304	-0.00225	-3.0529	-7.1432	-0.09125
10.178	15.828	.73296	.25162	2.99019	.00063	-3.2437	-0.01113	.01119	-3.0311	-6.8556	-0.14177
10.156	18.120	.83926	.31939	2.62769	.00103	-3.35749	.02334	.03900	-3.3923	-6.6708	-0.20912
10.119	20.435	.94499	.39967	2.36446	.00120	-3.38145	.04059	.05636	-3.6009	-7.3786	-0.31650
10.076	22.737	1.07678	.49270	2.18548	.00115	-4.0052	.04171	.07031	-3.8002	-8.3284	-0.42142
10.028	25.164	1.20374	.59677	2.01710	.00347	-4.5976	.03442	.09387	-3.7804	-8.6859	-0.46375
9.999	27.409	1.22972	.66559	1.84756	.00210	-4.7333	.01553	.09335	-4.3601	-8.6329	-0.50926
GRADIENT		.04364	.00007	.43350	.00007	.00118	.00041	.00132	.00248	-0.00233	-0.00272

TABULATED SOURCE DATA - OA17

DATE 15 NOV 73

OA17, LPT1138, ORB2A, (B10C5D7F4 M3) (M07E10) (VSR3)

(RPP024) (16 OCT 73)

PARAMETRIC DATA

BETA = .000 MACH = .256
ELEVTR = .000 AILRON = .000
RUDDER = -10.000 BDFLAP = -14.250
SPDRK = 54.920

REFERENCE DATA

SRF = 97.1960 SQ. IN. XMRP = 13.1469 INCHES
LREF = 19.9245 INCHES YMRP = .0000 INCHES
BREF = 14.0502 INCHES ZMRP = 6.0000 INCHES
SCALE = .0150 SCALE

RUN NO. 103/ 0 RN/L = 4.63 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB	CHR	CHET
4.833	-2.517	.00555	-1.1451	.09660	.04146	-.02244	.00857	-.00684	.03209	.11520	-.07029
4.751	-1.529	.00598	-.05971	.09930	.04137	-.02252	.00816	-.00677	.03124	.11551	-.07042
4.750	-.339	.00651	-.01499	.10005	.04093	-.02285	.00796	-.00670	.03184	.11526	-.06917
4.755	.829	.00671	.04101	.09955	.04015	-.02273	.00776	-.00663	.03208	.11456	-.06786
4.776	1.909	.00717	.09106	.09768	.03959	-.02291	.00757	-.00657	.03230	.11364	-.06484
4.764	4.043	.00762	.18876	.09072	.03940	-.02312	.00734	-.00632	.03153	.11250	-.06006
4.749	6.169	.00816	.26677	.07902	.04011	-.02352	.00712	-.00631	.04888	.11197	-.05450
4.759	8.533	.00876	.38810	.06559	.04150	-.02415	.00703	-.00598	.04807	.11097	-.04240
4.754	10.489	.00950	.49193	.05162	.04307	-.02483	.00682	-.00586	.04693	.11012	-.02450
4.762	12.723	.01023	.60674	.03688	.04146	-.02531	.00653	-.00498	.04790	.10954	-.00676
4.729	14.919	.01081	.73318	.02310	.03742	-.02593	.00628	-.00437	.05055	.11025	.01709
4.792	17.104	.01244	.86300	.01431	.03188	-.02629	.00564	-.00257	.05403	.11124	.03490
4.723	19.277	.01319	.98450	.01828	.02753	-.02840	.00507	-.00059	.05783	.11281	.05605
4.802	21.436	.01290	1.06905	.03512	.02282	-.03142	.00777	-.00507	.06274	.10813	.10502
4.707	23.640	.01617	1.20195	.03347	.01719	-.03795	.00828	-.00244	.06567	.11051	.12191
4.805	25.803	.01892	1.31469	.02485	.01981	-.03796	.00651	.00209	.07259	.11249	.13701
4.829	27.793	.02170	1.37815	.02010	.03903	-.04371	.00597	.00825	.08169	.11805	.13244
		.00032	.04633	-.00093	-.00037	-.00010	-.00018	.00005	-.00000	-.00046	.00163

RUN NO. 104/ 0 RN/L = 9.90 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB	CHR	CHET
10.399	-2.811	.00852	-1.1944	.09471	.04332	-.01928	.00793	-.00668	.05214	.11190	-.07049
10.359	-1.569	.00876	-.06322	.09719	.04328	-.01862	.00747	-.00650	.05399	.11261	-.06955
10.159	-.370	.00875	-.01875	.09715	.04339	-.01823	.00720	-.00645	.05381	.11193	-.06571
10.349	.952	.00961	.04178	.09709	.04252	-.01815	.00693	-.00633	.05292	.11014	-.06555
10.317	2.066	.01012	.09218	.09523	.04224	-.01819	.00676	-.00628	.05352	.10927	-.06357
10.267	4.335	.01109	.19362	.08706	.04238	-.01838	.00650	-.00610	.05103	.10775	-.05835
10.233	6.533	.01218	.29561	.07582	.04204	-.01860	.00623	-.00590	.05141	.10630	-.04900
10.190	8.837	.01321	.40399	.06177	.04287	-.01899	.00605	-.00592	.05069	.10467	-.03592
10.174	11.134	.01530	.51601	.04711	.04354	-.02003	.00587	-.00523	.05070	.10442	-.00124
10.150	13.451	.01688	.64008	.03288	.04028	-.02085	.00573	-.00454	.05070	.10457	.00215
10.150	15.788	.01928	.79035	.03566	.02518	-.02082	.00483	-.00385	.05655	.10677	.03169
10.125	18.101	.01892	.89745	.04069	.02603	-.02124	.00511	-.00461	.06008	.10689	.06423
10.075	20.356	.01999	1.01775	.04351	.01736	-.02331	.00574	-.00439	.06223	.10687	.10066
9.993	22.721	.01981	1.18283	.03716	.00613	-.02232	.00506	-.00035	.06524	.10854	.11661
9.963	25.236	.01842	1.34807	.02746	.00268	-.02003	.00417	-.00214	.07150	.10854	.12929
9.899	27.304	.01490	1.39990	.02559	.03013	-.02138	.00611	-.01133	.07914	.10538	.11357
		.00039	.04512	-.00109	-.00018	.00011	-.00020	.00008	-.00021	-.00071	.00172

GRADIENT

DATE 15 NOV 73

TABULATED SOURCE DATA - QM17

PAGE 60

QM17,LTPT139,ORB2A,(B10C507F4 M3) (M07E18) (VSR5)

(ZPP024) (16 OCT 73)

REFERENCE DATA

SREF = 87.1560 S4.IN. XMRP = 13.1469 INCHES
 LREF = 19.9245 INCHES YMRP = .0000 INCHES
 BREF = 14.0302 INCHES ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .236
 ELEVR = .000 AILRON = .000
 RUDDER = -10.000 BDFLAP = -14.250
 SPDBRK = 54.920

RUN NO. 103/ 0 RN/L = 4.63 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CHEO	CPC	CPVT	CPW
4.833	-2.517	-1.1016	.10154	-1.08485	.00026	-.32157	-.04470	-.02560	-.31687	-.61586	.01443
4.731	-1.329	-.05739	.10066	-.57018	-.00019	-.31634	-.04541	-.02501	-.31980	-.73271	.01548
4.750	-.339	-.01440	.10013	-.14379	-.00041	-.32005	-.04502	-.02415	-.32730	-.75566	.01501
4.755	.829	.03956	.10013	.19512	.00035	-.32153	-.04468	-.02318	-.31522	-.74897	.01257
4.776	1.909	.08775	.10066	.87178	.00054	-.32287	-.04434	-.02051	-.31327	-.70875	.00582
4.764	4.043	.18189	.10381	1.75220	.00036	-.31813	-.04339	-.01667	-.31172	-.72619	-.00203
4.749	6.188	.27658	.10948	2.52642	-.00031	-.30177	-.04140	-.01310	-.30721	-.69846	-.02153
4.759	8.333	.37449	.12114	3.09132	-.00031	-.29677	-.03356	-.00884	-.30220	-.67841	-.04192
4.754	10.489	.47431	.14031	3.38035	-.00012	-.28972	-.03356	-.00884	-.29190	-.73072	-.06360
4.762	12.723	.58373	.16960	3.44183	-.00003	-.28973	-.01085	.00409	-.29632	-.73540	-.12698
4.729	14.919	.70251	.21108	3.32815	.00064	-.31209	-.00007	.01717	-.30075	-.74756	-.17023
4.792	17.104	.81775	.26661	3.06725	.00148	-.33358	.00992	.02498	-.30730	-.66683	-.21531
4.723	19.277	.92327	.34228	2.69738	.00196	-.35701	.01993	.03612	-.32207	-.58977	-.28690
4.802	21.436	.98227	.42339	2.32002	.00312	-.38733	.04412	.05890	-.33178	-.60328	-.42392
4.707	23.640	1.08767	.51263	2.12172	.00174	-.40542	.05079	.07112	-.37440	-.58180	-.45507
4.805	25.803	1.17280	.59463	1.97232	.00440	-.44813	.06627	.07074	-.36986	-.61563	-.48399
4.829	27.793	1.20980	.66037	1.83199	.00410	-.57433	.06690	.06553	-.43129	-.59496	-.50809
GRADIENT	.04462	.00032	.43517	.00008	.00008	.00000	.00024	.00139	.00136	-.00988	-.00271

RUN NO. 104/ 0 RN/L = 9.90 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CHEO	CPC	CPVT	CPW
10.399	-2.611	-.11500	.10005	-1.14943	-.00062	-.32186	-.04536	-.02514	-.33295	-.69004	.00857
10.359	-1.369	-.06068	.09867	-.61703	.00057	-.33330	-.04523	-.02432	-.32311	-.71468	.00701
10.159	-.370	-.01812	.09727	-.18632	-.00015	-.33221	-.04400	-.02171	-.33493	-.70063	.00192
10.349	.932	.04016	.09777	.41079	-.00014	-.32668	-.04399	-.02156	-.32923	-.67754	.00551
10.317	2.066	.08869	.09849	.90048	.00075	-.33041	-.04341	-.02016	-.31700	-.65704	-.00280
10.267	4.335	.18648	.10144	1.83833	-.00044	-.31504	-.04223	-.01612	-.32283	-.69328	-.01159
10.233	6.533	.28507	.10896	2.61617	.00042	-.31739	-.03734	-.01166	-.30984	-.66551	.03079
10.190	8.837	.38971	.12310	3.16574	.00051	-.31295	-.02947	.00645	-.30393	-.69082	-.05055
10.174	11.134	.49720	.14587	3.40862	.00020	-.30409	-.01925	.00001	-.30150	-.67943	-.09160
10.150	13.451	.61487	.18086	3.39963	-.00009	-.31298	-.00803	.01018	-.31464	-.68373	-.13660
10.150	15.768	.75083	.24934	3.01122	.00130	-.34911	.00762	.02407	-.32604	-.74219	-.20507
10.125	18.101	.84039	.31751	2.64683	.00202	-.37091	.02572	.03851	-.33489	-.69912	-.30814
10.075	20.336	.93918	.39452	2.36058	.00210	-.38416	.04328	.05738	-.34673	-.65158	-.37072
9.993	22.721	1.07668	.49114	2.19220	.00173	-.40276	.04430	.07231	-.37199	-.59760	-.42619
9.963	25.236	1.20768	.59962	2.01409	.00287	-.44139	.03606	.09323	-.39033	-.63294	-.44431
9.899	27.304	1.23229	.66471	1.85388	.00312	-.48858	.01840	.09527	-.43306	-.61796	-.49641
GRADIENT	.04344	.00022	.43258	.00001	.00001	.00131	.00046	.00126	.00156	-.00320	-.00280

OA17, L1PT136, ORB2A, (B10C507F4 M3) (N07E16) (VSR5)

(RPP025) (16 OCT 73)

REFERENCE DATA

SREF = 87.1560 SQ. IN. XMRP = 13.1469 INCHES
 LREF = 19.9245 INCHES YMRP = .0000 INCHES
 BREF = 14.0502 INCHES ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

BETA = .000 MACH = .253
 ELEVTR = .000 AILRON = .000
 RUDDER = -10.003 BDFLAP = -14.250
 SPDRK = .000

PARAMETRIC DATA

RUN NO. 105/ 0 RN/L = 4.41 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB	CHR	CHT
4.840	-2.458	.00311	-.09042	.06356	.01168	-.01495	.00609	-.00561	.04212	.05296	-.06451
4.775	-1.311	.00358	-.03769	.06536	.01111	-.01564	.00608	-.00569	.04303	.05228	-.06359
4.827	-.286	.00412	.01004	.06545	.01017	-.01605	.00597	-.00575	.04286	.05163	-.06335
4.760	.616	.00411	.06252	.06514	.01008	-.01617	.00599	-.00575	.04119	.05134	-.06065
4.769	1.935	.00447	.11249	.06317	.00981	-.01660	.00595	-.00580	.04279	.04960	-.05861
4.757	4.067	.00493	.20882	.05562	.01015	-.01740	.00604	-.00582	.04216	.04853	-.05348
4.817	6.265	.00559	.31018	.04581	.01037	-.01795	.00595	-.00569	.04080	.04930	-.04668
4.822	8.375	.00618	.40872	.03382	.01133	-.01854	.00584	-.00577	.04065	.04958	-.03461
4.761	10.511	.00676	.51212	.02053	.01305	-.01942	.00576	-.00559	.04019	.04714	-.01763
4.826	12.716	.00775	.62163	.00660	.01224	-.02012	.00553	-.00459	.04123	.04741	.00054
4.750	14.881	.00815	.74815	-.00701	.00890	-.02076	.00529	-.00392	.04249	.04676	.02205
4.820	17.108	.00987	.87879	-.01566	.00319	-.02104	.00434	-.00226	.04634	.04766	.04072
4.741	19.335	.01065	1.00869	-.01046	-.00121	-.02337	.00470	.00086	.05010	.04777	.06414
4.820	21.488	.01034	1.08792	.00557	.00170	-.02645	.00684	.00048	.05622	.05022	.11006
4.833	23.741	.01482	1.21925	.00784	-.00740	-.03356	.00742	-.00181	.06118	.05622	.12969
4.675	25.740	.01541	1.31952	.00003	-.00161	-.03475	.00654	.00058	.06706	.05976	.14333
4.407	27.674	.01394	1.36142	-.00634	.02001	-.03969	.00885	.00039	.07270	.06447	.14287
GRADIENT		.00027	.04594	-.00121	-.00024	-.00035	-.00001	-.00003	-.00005	-.00070	.00172

RUN NO. 106/ 0 RN/L = 10.00 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB	CHR	CHT
10.318	-2.577	.00654	-.09342	.06275	.01199	-.01514	.00623	-.00597	.04651	.05123	-.07163
10.351	-1.359	.00704	-.03705	.06437	.01133	-.01525	.00614	-.00597	.04295	.05147	-.06970
10.346	-.315	.00756	.00927	.06475	.01109	-.01537	.00611	-.00601	.04170	.05072	-.06857
10.320	.867	.00828	.06258	.06330	.01090	-.01590	.00608	-.00605	.04431	.04965	-.06641
10.295	2.127	.00862	.11911	.06101	.01068	-.01608	.00605	-.00603	.04349	.04984	-.06396
10.297	4.311	.01037	.21811	.05414	.01028	-.01688	.00601	-.00597	.04342	.04935	-.06287
10.283	6.537	.01123	.32187	.04376	.00963	-.01725	.00581	-.00592	.04375	.04814	-.04888
10.272	8.672	.01225	.43164	.03045	.01107	-.01764	.00566	-.00599	.04351	.04832	-.03513
10.226	11.130	.01440	.54206	.01635	.01177	-.01898	.00561	-.00530	.04512	.04758	-.01808
10.233	13.467	.01621	.66621	.00225	.00892	-.01992	.00549	-.00459	.04411	.04744	.00336
10.231	15.699	.01893	.82154	.00590	-.00581	-.02008	.00459	-.00293	.04812	.04841	.03379
10.246	18.138	.01759	.92369	.01302	-.00406	-.02194	.00450	-.00471	.05258	.04954	.06650
10.201	20.454	.01950	1.05037	.01744	-.01118	-.02171	.00515	-.00143	.05794	.05282	.10278
10.192	22.799	.01959	1.21060	.01101	-.02073	-.02132	.00482	-.00036	.06007	.05508	.11662
10.051	25.167	.01727	1.36632	.00162	-.02287	-.01924	.00425	-.00250	.06311	.05689	.13030
10.001	27.400	.01422	1.41985	.00083	-.00668	-.02210	.00686	-.01164	.07379	.05935	.14233
GRADIENT		.00051	.04513	-.00129	-.00023	-.00026	-.00003	-.00000	-.00022	-.00032	.00183

0A17, 1PT1138, 0R2A, (B1DC3D7F4 M3) (M07E18) (V5R5)

(ZPP025) (16 OCT 73)

REFERENCE DATA

SREF = 97.1560 SQ. IN. XMRP = 13.1469 INCHES
 LREF = 19.9245 INCHES YMRP = .0000 INCHES
 BREF = 14.0502 INCHES ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .253
 ELEVR = .000 AILRON = .000
 RUDDER = -10.000 BDFLAP = -14.250
 SPDBRK = .000

RUN NO. 105/ 0 RN/L = 4.41 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CHEO	CPC	CPVT	CPW
4.840	-2.458	-.08761	.06738	-1.30226	-.00033	-.26902	-.04082	-.02369	-.26581	-.27684	.02351
4.775	-1.311	-.03619	.06621	-.54558	.00016	-.26565	-.04094	-.02264	-.26281	-.27400	.02292
4.627	-.286	.01037	.06540	.15855	-.00009	-.26459	-.04111	-.02224	-.26613	-.27660	.02059
4.780	.816	.06158	.06602	.93272	-.00027	-.25428	-.04075	-.01990	-.25913	-.27930	.01644
4.769	1.935	.11029	.06694	1.64774	.00029	-.26417	-.04030	-.01831	-.25899	-.27563	.00920
4.757	4.067	.20435	.07029	2.97745	-.00008	-.26024	-.03898	-.01450	-.26167	-.26994	.00002
4.817	6.265	.30333	.07939	3.82078	-.00059	-.25189	-.03589	-.01079	-.26237	-.27350	-.01647
4.822	8.375	.39943	.09299	4.29540	-.00044	-.25095	-.02826	-.00635	-.25885	-.27182	-.03962
4.761	10.511	.49978	.11361	4.39911	-.00067	-.24808	-.01755	-.00308	-.26005	-.27781	-.06275
4.826	12.716	.60883	.14414	4.22377	-.00041	-.25455	-.00686	.00740	-.26106	-.28405	-.12575
4.750	14.881	.72515	.18544	3.91051	-.00045	-.26234	.02290	.01915	-.27026	-.29060	-.17044
4.820	17.108	.84451	.24355	3.46753	-.00008	-.28609	.01357	.02716	-.28745	-.29727	-.21609
4.741	19.335	.9552F	.32409	2.94748	.00082	-.30931	.02574	.03841	-.29473	-.31287	-.28515
4.820	21.488	1.06887	.40722	2.47745	.00068	-.34706	.04856	.06150	-.33487	-.34267	-.42204
4.853	23.741	1.11291	.49805	2.23452	.00204	-.37771	.05781	.07188	-.34148	-.36659	-.45572
4.675	25.740	1.18858	.57308	2.07402	.00325	-.41400	.07253	.07080	-.35618	-.40356	-.45230
4.407	27.674	1.20863	.62C57	1.92864	.00328	-.44883	.07496	.06791	-.39050	-.42879	-.40481
GRADIENT		.04482	.02047	.65012	.00031	.00031	.00029	.00143	.00081	.00075	-.00382

RUN NO. 106/ 0 RN/L = 10.00 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CHEO	CPC	CPVT	CPW
10.318	-2.577	-.09050	.06687	-1.35342	.00107	-.28711	-.04537	-.02606	-.26804	-.27989	.01292
10.351	-1.359	-.03551	.06523	-.54442	-.00053	-.26512	-.04488	-.02482	-.27458	-.28538	.01825
10.346	-.315	.00963	.06470	.14884	-.00063	-.25744	-.04466	-.02240	-.26869	-.28916	.01434
10.350	.867	.06161	.06424	.95913	.00032	-.27354	-.04401	-.02240	-.26793	-.27829	.00897
10.295	2.127	.11677	.06539	1.78561	-.00006	-.26846	-.04304	-.02092	-.26944	-.27803	.00201
10.297	4.311	.21342	.07038	3.03229	-.00020	-.26806	-.04200	-.01686	-.27161	-.28150	-.00775
10.285	6.537	.31480	.08012	3.92934	-.00004	-.27008	-.03651	-.01238	-.27072	-.28487	-.02769
10.272	8.672	.42178	.09665	4.36377	-.00070	-.26863	-.02821	-.00692	-.28104	-.28652	-.04572
10.226	11.130	.52871	.12068	4.38115	.00039	-.27854	-.01805	-.00003	-.27156	-.28826	-.08275
10.233	13.467	.64737	.15734	4.11444	.00001	-.27228	-.00723	.01059	-.27238	-.29352	-.14531
10.231	15.699	.78850	.20374	3.41729	.00042	-.29704	.01931	.02449	-.27238	-.29352	-.14531
10.246	18.138	.87373	.29993	2.91310	.00071	-.32463	.02749	.03900	-.31201	-.30555	-.2.733
10.201	20.454	.97806	.38339	2.55106	.00156	-.35769	.04507	.05770	-.32999	-.36329	-.38906
10.192	22.799	1.11174	.47526	2.31970	.00090	-.37082	.04457	.07204	-.35478	-.36644	-.43605
10.091	25.167	1.23593	.58252	2.12171	.00099	-.38959	.03617	.09413	-.37205	-.40140	-.43757
10.001	27.400	1.28018	.65414	1.92848	.00207	-.45556	.01995	.09428	-.41871	-.43988	-.47705
GRADIENT		.04403	.00046	.64196	-.00008	.00136	.00052	.00131	-.00010	.00050	-.00332

OA17,LTPT138,OR82A,(810C507F4 MS) (M87E18) (VSR5)

(RP0026) (16 OCT 75)

REFERENCE DATA

SREF = 87.1500 SQ. IN. XGRP = 13.1489 INCHES
 LREF = 19.8245 INCHES YGRP = .0000 INCHES
 BREF = 14.0502 INCHES ZGRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .251
 ELEVR = .000 AILRON = .000
 RUDDER = .000 BOFLAP = -14.250
 SPDRK = .000

RUN NO. 107/ 0 RN/L = 2.44 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	ON	CA	CLM	CY	CYN	CBL	CAB	CHR	CHT
2.448	-2.507	.00091	-.08600	.06031	.00796	.00155	-.00219	-.00133	.03996	-.00669	-.07648
2.441	-1.411	.00113	-.03752	.06205	.00691	.00103	-.00224	-.00142	.03967	-.00434	-.07595
2.445	-.344	.00104	.01327	.06228	.00678	.00119	-.00216	-.00162	.04045	-.00485	-.07442
2.446	.676	.00130	.05742	.06127	.00770	.00053	-.00220	-.00198	.04050	-.00635	-.07396
2.453	1.783	.00128	.10769	.05997	.00756	.00039	-.00208	-.00216	.03973	-.00193	-.07216
2.443	3.818	.00147	.20134	.05468	.00656	-.00009	-.00211	-.00222	.03904	-.00221	-.06614
2.447	5.963	.00146	.30157	.04207	.00867	.00034	-.00197	-.00196	.03818	-.00220	-.05633
2.440	8.078	.00195	.40361	.03061	.00844	-.00148	-.00206	-.00183	.03823	-.00071	-.04376
2.436	10.213	.00229	.50423	.01776	.01095	-.00246	-.00204	-.00123	.03668	-.00195	-.02672
2.431	12.333	.00294	.61156	.00454	.01176	-.00421	-.00208	-.00009	.04009	-.00671	-.00969
2.447	14.552	.00305	.73165	-.01030	.01331	-.00481	-.00188	-.00108	.04088	-.00324	.01213
2.442	16.590	.00369	.84670	-.02372	.00866	-.00561	-.00190	-.00093	.04392	-.00662	.02968
2.433	18.777	.00391	.97151	-.02170	.00450	-.01487	-.00226	.00220	.04632	-.00639	.05193
2.433	20.642	.00464	1.07694	-.02496	.00660	-.01613	.00176	.00333	.04990	-.00169	.07633
2.449	22.931	.00513	1.17929	-.03803	-.00343	-.01532	.00054	-.00051	.05772	-.00026	.12334
2.443	25.085	.00424	1.27291	-.00265	-.00560	-.01120	-.00048	-.00117	.06321	.00307	.13697
2.437	27.193	.00204	1.32007	-.00421	.01724	-.00879	.00159	-.00724	.06916	-.00706	.14513
GRADIENT		.00008	.04563	-.00093	-.00011	-.00025	.00002	-.00016	-.00016	.00687	.00157

RUN NO. 108/ 0 RN/L = 4.65 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	ON	CA	CLM	CY	CYN	CBL	CAB	CHR	CHT
4.737	-2.492	.00183	-.08777	.06040	.00965	.00169	-.00228	-.00138	.04159	-.01111	-.07487
4.761	-1.391	.00187	-.03643	.06208	.00908	.00156	-.00223	-.00146	.04085	-.00906	-.07346
4.759	-.343	.00233	.01384	.06245	.00823	.00076	-.00212	-.00153	.04126	-.00935	-.07222
4.765	.789	.00253	.06431	.06185	.00833	.00052	-.00212	-.00165	.04119	-.00979	-.06995
4.749	1.900	.00264	.11695	.06027	.00754	.00012	-.00215	-.00175	.04141	-.00830	-.06839
4.792	3.960	.00331	.20626	.05219	.00911	-.00079	-.00194	-.00189	.03980	-.00853	-.06260
4.862	6.189	.00426	.31200	.04242	.00818	-.00179	-.00196	-.00179	.04029	-.00846	-.05364
4.801	8.357	.00465	.41269	.03024	.00987	-.00214	-.00206	-.00204	.04063	-.01063	-.03955
4.872	10.531	.00562	.51797	.01685	.01180	-.00344	-.00203	-.00162	.04088	-.00698	-.02482
4.861	12.693	.00661	.63061	.00324	.01111	-.00453	-.00217	-.00080	.04078	-.00793	-.00862
4.879	14.862	.00736	.75149	-.01024	.00727	-.00466	-.00251	-.00025	.04178	-.01024	.01512
4.721	17.116	.00818	.88332	-.02107	.00424	-.00437	-.00362	.00122	.04487	-.00950	.03068
4.755	19.230	.00939	1.00332	-.01572	-.00104	-.00762	-.00290	.00420	.04991	-.00863	.05421
4.745	21.455	.00968	1.08712	.00394	-.00074	-.01087	-.00066	-.00161	.05658	-.00792	.10038
4.731	23.609	.01259	1.21074	.00463	-.00809	-.01713	-.00029	.00061	.06017	-.00707	.12063
4.761	25.745	.01391	1.31254	-.00204	-.00166	-.01720	-.00138	.00293	.06710	-.00555	.13522
4.646	27.796	.01304	1.35143	-.00728	.02444	-.01983	.00010	.00298	.08030	-.00227	.13098
GRADIENT		.00024	.04560	-.00123	-.00013	-.00039	.00005	-.00006	-.00019	.00003	.00186

DATE 15 NOV 73

TABULATED SOURCE DATA - CA17

PAGE 84

CA17, LTP1138, CR82A, (B10C3D7F4 M3) (NOTE18) (VSR5)

(RPP026) (16 OCT 73)

REFERENCE DATA

SRF7 = 87.1960 96.1N. XMRP = 13.469 INCHES
 LREF = 19.9245 INCHES YMRP = .0000 INCHES
 SREF = 14.0502 INCHES ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .251
 ELEVTR = .070 AILRON = .000
 RUDDER = .000 LOFLAP = -14.250
 SPDRK = .000

RUN NO. 109/ 0 RN/L = 10.16 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAS	CR	CHET
10.266	-2.630	.00306	-.09270	.09920	.00979	.00276	-.07258	-.00145	.04244	-.00789	-.07482
10.269	-1.434	.00393	-.03755	.06102	.00913	.00223	-.00256	-.00156	.04387	-.00821	-.07311
10.273	-.308	.00450	.01341	.06193	.00864	.00161	-.00272	-.00165	.04262	-.00768	-.07131
10.276	.849	.00495	.06454	.06014	.00879	.00146	-.00247	-.00176	.04449	-.00805	-.06931
10.240	1.964	.00558	.11581	.09824	.00859	.00086	-.00237	-.00182	.04305	-.00749	-.06716
10.263	4.297	.00682	.22021	.05114	.00817	.00005	-.00231	-.00193	.04149	-.00717	-.06680
10.207	6.585	.00791	.32795	.04054	.00752	-.00043	-.00245	-.00199	.04141	-.00646	-.04999
10.234	8.613	.00895	.43216	.02775	.00909	-.00094	-.00251	-.00203	.04264	-.00793	-.03741
10.223	11.168	.01118	.54706	.01316	.01012	-.00244	-.00246	-.00119	.04453	-.00836	-.02062
10.233	13.488	.01326	.67040	-.00387	.00744	-.00395	-.00240	-.00073	.04157	-.00799	.00053
10.239	15.904	.01560	.82805	.00367	-.00770	-.00352	-.00342	-.00079	.04669	-.00725	.03124
10.202	18.146	.01419	.92664	.01015	-.00313	-.00253	-.00356	-.00066	.05101	-.00774	.06369
10.226	20.465	.01649	1.05266	.01482	-.01246	-.00310	-.00295	.00256	.05326	-.00613	.10071
10.200	22.802	.01580	1.21547	.00820	-.02231	-.00353	-.00366	.00334	.06053	-.00644	.11531
10.187	25.201	.01499	1.37233	-.00106	-.02540	-.00241	-.00408	.00126	.06402	-.00610	.12717
10.159	27.291	.01827	1.42153	-.00213	.00334	-.01029	-.00059	-.00480	.07446	-.00509	.10666
GRADIENT		.00053	.04506	-.00121	-.00020	-.00039	.00004	-.00007	-.00015	.00012	.00200

RUN NO. 110/ 0 RN/L = 11.83 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAS	CR	CHET
11.866	-2.634	.00267	-.09315	.09900	.00956	.00317	-.00260	-.00145	.04307	-.00758	-.07315
12.003	-1.444	.00341	-.03952	.06079	.00921	.00272	-.00256	-.00155	.04400	-.00723	-.07166
12.009	-.298	.00420	.01234	.06130	.00872	.00219	-.00252	-.00166	.04370	-.00617	-.06969
11.944	.869	.00466	.06466	.05998	.00862	.00179	-.00246	-.00175	.04376	-.00633	-.06761
11.960	2.025	.00541	.11526	.05797	.00878	.00127	-.00239	-.00180	.04456	-.00641	-.06516
11.963	4.317	.00772	.21912	.03101	.00816	.00029	-.00236	-.00193	.04298	-.00731	-.05861
11.951	6.620	.00934	.32694	.04028	.00756	.00006	-.00247	-.00195	.04334	-.00733	-.04760
11.947	8.943	.01175	.43569	.02679	.00908	-.00077	-.00254	-.00120	.04257	-.00792	-.03526
11.922	11.227	.01175	.54663	.01266	.01026	-.00210	-.00256	-.00120	.04627	-.00788	-.01878
11.933	13.597	.01399	.67001	-.00208	.00892	-.00418	-.00212	-.00051	.04583	-.00773	.00249
11.925	16.040	.01669	.82728	.00252	-.00377	-.00267	-.00375	.00015	.04807	-.00736	.03059
11.912	18.299	.01550	.92377	.01025	-.00256	-.00243	-.00365	.00015	.05302	-.00689	.06321
11.914	20.616	.01827	1.06344	.01443	-.01421	-.00392	-.00266	.00161	.05681	-.01601	.10267
11.922	23.066	.01952	1.22604	.00715	-.02342	-.00617	-.00298	.00279	.05865	-.00524	.11763
11.829	25.488	.01907	1.38230	-.00173	-.02634	-.00569	-.00326	.00055	.06625	-.00473	.12664
GRADIENT		.00061	.04465	-.00119	-.00016	-.00041	.00004	-.00007	.00003	.00005	.00205

0A17, L1PT138, ORB2A, (B10C5D774 NS) (N07E18) (V595)

(ZPP026) (16 OCT 73)

REFERENCE DATA

SREF = 87.1560 84.1N. XMRP = 13.1469 INCHES
 LREF = 19.9245 INCHES YMRP = .0000 INCHES
 BREF = 14.0502 INCHES ZMRP = 6.0000 INCHES
 SCALE = .0177 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .251
 ELEVTR = .000 AILRON = .000
 RUDDER = .000 BOFLAP = -14.250
 SPOBRK = .000

RUN NO. 107/ 0 RN/L = 2.44 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	CL	CD	L/D	CAC	CP8	CHEI	CHEO	CPC	CPVT	CPM
2.448	-2.507	-0.0328	.06410	-1.33041	.00119	-2.4672	-0.0347	-0.02301	-2.2561	-2.5813	.02971
2.441	-1.411	-0.0358	.06295	-1.37154	-0.00358	-2.4488	-0.0386	-0.02209	-2.2516	-2.5830	.03297
2.445	-1.344	-0.01364	.06220	-2.1929	.00041	-2.4969	-0.0319	-0.02123	-2.2434	-2.5692	.03226
2.446	.676	.05669	.06195	.91517	.00047	-2.5002	-0.0325	-0.02071	-2.24165	-2.5661	.02758
2.453	1.783	.10377	.06329	1.67112	-0.00042	-2.3909	-0.0313	-0.01903	-2.24685	-2.5627	.02411
2.443	3.616	.19726	.06797	2.90229	-0.00028	-2.4103	-0.0316	-0.01426	-2.24607	-2.5633	.01768
2.447	5.983	.29557	.07317	4.03920	-0.00062	-2.3368	-0.04877	-0.00958	-2.24666	-2.5369	.00005
2.440	6.076	.39547	.08723	4.53275	-0.00006	-2.3601	-0.03720	-0.00856	-2.23704	-2.5377	.02243
2.436	10.213	.49309	.10688	4.61361	.00114	-2.3880	-0.02642	-0.00330	-2.1846	-2.26126	.06276
2.431	12.333	.59648	.13306	4.41644	-0.00356	-2.4752	-0.01632	.00684	-2.25391	-2.26616	-1.0241
2.447	14.552	.71077	.17386	4.08820	-0.00024	-2.5236	-0.00546	.01759	-2.25660	-2.27733	-1.1461
2.442	16.590	.82014	.21959	3.73490	.00021	-2.7111	.00375	.02593	-2.26742	-2.27784	-1.1854
2.433	18.777	.92679	.29218	3.17202	.00339	-2.8594	.01761	.03453	-2.27891	-2.28964	-2.2190
2.433	20.642	1.01335	.35964	2.82166	.00126	-3.1804	.03243	.04390	-2.30283	-2.30283	-2.27406
2.449	22.931	1.08922	.45208	2.40935	.00259	-3.5634	.05920	.06414	-3.1027	-3.4418	-4.3529
2.443	25.065	1.15416	.53686	2.14983	.00230	-3.9021	.05419	.08278	-3.4925	-3.7713	-4.4432
2.437	27.193	1.17809	.59932	1.98173	.00257	-4.2686	.05655	.08858	-3.8116	-4.0959	-4.1593
GRADIENT	.04455	.00037	.00037	.67362	-0.00016	.00110	.00026	.00132	-0.00170	.00049	-0.00224

RUN NO. 106/ 0 RN/L = 4.65 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	CL	CD	L/D	CAC	CP8	CHEI	CHEO	CPC	CPVT	CPM
4.757	-2.492	-0.0476	.06415	-1.32126	.00009	-2.5678	-0.04878	-0.02810	-2.2520	-2.27168	.02481
4.761	-1.391	-0.0491	.06294	-1.55467	-0.00336	-2.5216	-0.04835	-0.02313	-2.25651	-2.27163	.02878
4.759	-1.343	.01421	.06237	-2.2788	-0.00040	-2.5471	-0.04615	-0.02408	-2.26185	-2.26873	.02177
4.785	.769	.06345	.06273	1.01142	-0.00021	-2.5431	-0.04748	-0.02247	-2.25808	-2.27929	.01983
4.749	1.900	.11489	.06411	1.79204	-0.00034	-2.5583	-0.04724	-0.02114	-2.26174	-2.27138	.01399
4.792	3.966	.20215	.06633	3.04750	-0.00042	-2.4571	-0.04579	-0.01681	-2.25320	-2.26711	.00618
4.882	6.189	.30561	.07581	4.03098	-0.00025	-2.4874	-0.04101	-0.01263	-2.25325	-2.27654	.01210
4.861	8.357	.40391	.08990	4.49295	-0.00032	-2.5084	-0.03139	-0.00816	-2.25649	-2.28300	.03420
4.872	10.531	.50617	.11123	4.55037	-0.00038	-2.5235	-0.02208	-0.00274	-2.25904	-2.27094	.05995
4.861	12.693	.61448	.14172	4.33596	-0.00091	-2.5173	-0.01238	.00378	-2.26782	-2.28669	-1.12106
4.879	14.882	.72892	.18310	3.98087	-0.00054	-2.5794	-0.00300	.00300	-2.28245	-2.29362	-1.6826
4.721	17.118	.85039	.23866	3.54536	-0.00031	-2.7699	.00564	.02505	-2.28245	-2.29362	.20982
4.755	19.250	.95252	.31562	3.01791	.00097	-3.0811	.01874	.03547	-2.29078	-2.29366	-2.6804
4.745	21.435	1.01034	.40130	2.51769	.00200	-3.4928	.04130	.05908	-3.33724	-3.41977	-4.1977
4.751	23.609	1.10747	.48932	2.26330	.00154	-3.7148	.04683	.07186	-3.4414	-3.6334	-4.5381
4.761	25.745	1.18314	.56826	2.08197	.00279	-4.1424	.06416	.07106	-3.6467	-4.01235	-4.5580
4.646	27.756	1.19887	.62362	1.92183	.00365	-4.9573	.06513	.06585	-4.3071	-4.2629	-3.4251
GRADIENT	.04454	.00039	.00039	.68165	-0.00005	.00116	.00044	.00142	-0.00046	.00044	-0.00315

0417, L1PT138, ORB2A, (B10C507F4 M5) (M57Z18) (VSR5)

(ZPP026) (16 OCT 73)

REFERENCE DATA

SRP = 97.1560 SQ. IN. XMRP = 13.1469 INCHES
 LRP = 19.9245 INCHES YMRP = .0000 INCHES
 BRP = 14.0502 INCHES ZMRP = 6.0000 INCHES
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .231
 ELEVTR = .000 AILRON = .000
 RUDDER = .000 BDFLAP = -14.650
 SPDRK = .000

RUN NO. 109/ 0 RV/L = 10.16 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CHEO	CPC	CPVT	CPW
10.266	-2.630	-.06966	.06339	-1.41780	-.00047	-.26186	-.04922	-.02560	-.27035	-.26703	.01530
10.269	-1.434	-.03601	.06194	-.56132	-.00020	-.27063	-.04659	-.02451	-.27445	-.27714	.01168
10.273	-.308	.01375	.06146	-.22365	-.00045	-.26310	-.04822	-.02329	-.27116	-.27559	.01502
10.276	.849	.06364	.06109	1.04175	.00068	-.27463	-.04736	-.02193	-.26982	-.26284	.01253
10.280	1.984	.11372	.06222	1.82785	-.00017	-.26574	-.04875	-.02041	-.26872	-.27713	.00248
10.283	4.297	.21576	.06749	3.19661	-.00069	-.25615	-.04491	-.01586	-.26639	-.27456	-.00539
10.287	6.565	.32074	.07783	4.12086	-.00068	-.25665	-.03993	-.01106	-.26767	-.26145	-.02068
10.294	8.613	.42281	.09363	4.51552	.00031	-.26445	-.03123	-.00111	-.26999	-.26764	-.04729
10.293	11.186	.53413	.11906	4.48606	.00006	-.27490	-.02173	.00111	-.27363	-.26450	-.06583
10.295	13.486	.65806	.15571	4.18763	-.00111	-.25666	-.01039	.01012	-.27642	-.29262	-.14579
10.295	15.904	.79342	.22969	3.45127	.00041	-.26824	.01626	.02456	-.26092	-.30793	-.21633
10.292	18.146	.87740	.29624	2.94194	.00016	-.31488	.02321	.04046	-.31206	-.32944	-.31117
10.298	20.485	.96111	.36174	2.57011	.00068	-.34116	.04026	.06045	-.32696	-.34169	-.37252
10.290	22.602	1.11750	.47662	2.33444	.00166	-.37366	.03942	.07599	-.34021	-.36822	-.40936
10.187	25.201	1.24217	.56337	2.12931	.00174	-.39323	.03057	.09660	-.36421	-.38127	-.46500
10.199	27.291	1.28428	.64909	1.94537	.00215	-.45967	.01277	.09369	-.42149	-.42594	-.52632
GRADIENT		.04403	.00056	.67164	-.00001	.00095	.00062	.00136	.00074	.00119	-.00302

RUN NO. 110/ 0 RV/L = 11.63 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CHEO	CPC	CPVT	CPW
11.966	-2.634	-.09034	.06322	-1.42688	-.00014	-.26566	-.04815	-.02499	-.26643	-.27440	.01671
12.003	-1.444	-.03786	.06177	-.61495	.00032	-.27166	-.04775	-.02393	-.26593	-.29012	.01650
12.009	-.298	.01265	.06124	-.20665	-.00011	-.26977	-.04713	-.02256	-.27167	-.28250	.01395
11.944	.869	.06372	.06096	1.04498	.00006	-.27026	-.04646	-.02114	-.26921	-.27316	.01190
11.990	2.025	.11316	.06301	1.82492	.00047	-.27323	-.04547	-.01969	-.26678	-.27926	.00300
11.963	4.317	.21466	.06736	3.18653	.00009	-.26531	-.04376	-.01905	-.26364	-.27594	-.00763
11.991	6.613	.32012	.07770	4.11977	-.00019	-.26756	-.03745	-.01035	-.26068	-.27366	-.02067
11.947	9.943	.42623	.09420	4.52492	-.00043	-.26282	-.02937	-.00970	-.27047	-.27063	-.04217
11.922	11.227	.53370	.11684	4.49082	.00079	-.26566	-.01969	.00111	-.27156	-.27554	-.06203
11.933	13.597	.65172	.15549	4.19142	.00034	-.26291	-.03675	.01124	-.27683	-.29432	-.13713
11.932	16.040	.79436	.23101	3.43671	.00054	-.29675	.00581	.02516	-.26714	-.30966	-.20060
11.923	18.299	.87303	.29978	2.91496	.00153	-.32733	.02375	.04146	-.30007	-.31742	-.34930
11.912	20.656	.96999	.36664	2.54731	.00150	-.35070	.04151	.06136	-.32750	-.34139	-.36362
11.922	23.066	1.12506	.48732	2.30868	.00122	-.36331	.04012	.07751	-.34154	-.36176	-.4145
11.829	25.466	1.24832	.59326	2.10449	.00266	-.40896	.03116	.09768	-.36125	-.38799	-.46555
GRADIENT		.04360	.00056	.67015	.00003	-.00000	.00064	.00141	.00059	.00075	-.00355

DATE 15 NOV 73

TABULATED SOURCE DATA - 0A17

PAGE 87

CALC: LTP1138,0822A, (810C50774 MS) (A87E18) (VSR3)

(BPP027) (18 OCT 73)

REFERENCE DATA

SPOT = 07.1960 INCHES
 LREF = 19.9245 INCHES
 SPOT = 14.0922 INCHES
 SCALE = .0190 SCALE

BETA = .000
 ELEVTR = .000
 A-CORR = .000
 SPOT90K = 24.987

PARAMETRIC DATA

RUN NO. 111/ 0 RM/L = 2.39 GRADIENT INTERVAL = -5.00/ 5.00

RM/L	ALPHA	BETA	ON	CA	CLM	CY	CYN	CEL	CAS	OR	OET
2.409	-2.498	.00040	-.10242	.06931	.01747	-.00132	.00015	-.00255	.04168	.00397	-.07593
2.398	-1.433	.00065	-.07356	.07107	.01718	-.00199	.00015	-.00263	.04142	.00375	-.07520
2.403	-.367	.00072	-.00340	.07104	.01648	-.00217	.00016	-.00266	.04148	.00363	-.07464
2.402	-.707	.00078	.04639	.07032	.01775	-.00287	.00019	-.00294	.04092	.00735	-.07362
2.402	1.740	.00102	.09187	.06895	.01744	-.00354	.00020	-.00305	.04175	.00336	-.07347
2.401	3.866	.00114	.18816	.06323	.01640	-.00345	.00025	-.00313	.04132	.00496	-.06670
2.398	5.947	.00141	.28342	.05961	.01811	-.00441	.00038	-.00304	.04009	.00408	-.08014
2.398	8.070	.00173	.38362	.03887	.01776	-.00500	.00029	-.00287	.03989	.00523	-.04624
2.405	10.200	.00224	.48733	.02622	.02046	-.00768	.00029	-.00243	.04130	.00626	-.02713
2.402	12.314	.00253	.59816	.01272	.02084	-.00848	.00027	-.00214	.04120	.00503	-.01004
2.394	14.510	.00271	.71255	-.02248	.02109	-.00783	.00025	-.00236	.04392	.00542	.00808
2.396	16.990	.00306	.82989	-.01671	.01903	-.00842	.00023	-.00235	.04456	.00674	.02536
2.418	19.722	.00354	.94597	-.01200	.01492	-.01844	.00491	.00238	.04759	.00860	.04932
2.394	20.881	.00444	1.05221	-.01802	.01940	-.01708	.00257	.00328	.05068	.01003	.07614
2.401	22.983	.00463	1.15302	-.02143	.00766	-.01475	.00093	-.00194	.05997	.01641	.12287
2.397	25.018	.00435	1.25064	.00388	.00289	-.01479	.00129	-.00266	.06512	.01912	.19330
2.407	27.079	.00323	1.30693	.00203	.02307	-.01400	.00255	-.00348	.06800	.01198	.14646
2.394	GRADIENT	.00012	.04338	-.00098	-.00010	-.00033	.00002	-.00010	-.00005	.00017	.00128

RUN NO. 112/ 0 RM/L = 4.63 GRADIENT INTERVAL = -5.00/ 5.00

RM/L	ALPHA	BETA	ON	CA	CLM	CY	CYN	CEL	CAS	OR	OET
4.874	-2.511	.00344	-.08072	.02604	.01619	-.00542	.00090	-.00281	.04352	.01154	-.07437
4.871	-.333	.00410	.07949	.07006	.01511	-.00630	.00092	-.00299	.04339	.01207	-.07289
4.873	.787	.00454	.06011	.06949	.01479	-.00682	.00055	-.00303	.04304	.01201	-.07085
4.859	1.892	.00470	.10789	.06811	.01470	-.00718	.00056	-.00309	.04218	.01187	-.06939
4.869	4.021	.00530	.20581	.05987	.01507	-.00817	.00071	-.00317	.04228	.01196	-.06341
4.873	6.128	.00587	.30411	.05929	.01557	-.00882	.00072	-.00302	.04245	.01080	-.05415
4.872	8.309	.00642	.40532	.05790	.01624	-.00962	.00064	-.00339	.04085	.01029	-.04083
4.862	10.475	.00721	.50965	.02440	.01808	-.01065	.00059	-.00317	.04255	.01147	-.02447
4.880	12.636	.00819	.62048	.01066	.01900	-.01187	.00044	-.00241	.04449	.01142	-.00702
4.865	14.825	.00881	.74502	-.00277	.01382	-.01233	.00025	-.00183	.04639	.01329	.03414
4.875	17.071	.00990	.87755	-.01251	.00865	-.01235	-.00059	-.00073	.04821	.01348	.05789
4.847	19.219	.01086	.99056	-.00845	.00785	-.01170	-.00059	-.00070	.05114	.01416	.09982
4.872	21.402	.01105	1.07962	.00853	.00724	-.02002	.00264	-.00216	.05787	.01348	.12107
4.868	23.596	.01451	1.20077	.01053	-.00799	-.02482	.00237	-.00044	.06890	.01455	.13391
4.864	25.755	.01555	1.30154	.00836	-.00836	-.02504	.00160	.00063	.06823	.01851	.12793
4.834	27.823	.01494	1.32587	-.00067	.01494	-.02835	.00359	.00022	.07829	.01629	.00167
	GRADIENT	.00028	.04535	-.00121	-.00017	-.00042	.00003	-.00005	-.00003	.00004	.00004

CA17, L1PT136, CR82A, (B1DC5D774 MS) (M07E10) (VSR5)

(RPP027) (16 OCT 73)

REFERENCE DATA

SRF = 87.1960 84.1M. XMRP = 13.1469 INCHES
 LRF = 19.9245 INCHES YMRP = .0020 INCHES
 DRF = 14.0502 INCHES ZMRP = 6.0000 INCHES
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .250
 ELEVR = .000 AILRON = .000
 RUDDER = .000 SCFLAP = -14.250
 SPDRK = 24.920

RUN NO. 113/ 0 RV/L = 9.92 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB	CMR	CHET
10.124	-2.628	.00432	-.09745	.06727	.01742	-.00287	.00014	-.00272	.04690	.00668	-.07420
10.164	-1.308	.00485	-.03688	.06911	.01879	-.00313	.00013	-.00280	.04546	.00654	-.07261
10.190	-.240	.00559	.01118	.06948	.01629	-.00365	.00016	-.00285	.04530	.00634	-.07098
10.217	.908	.00643	.06331	.06858	.01598	-.00410	.00016	-.00290	.04481	.00691	-.06885
10.005	1.968	.00665	.11015	.06639	.01624	-.00456	.00026	-.00296	.04400	.00711	-.06729
10.201	4.278	.00845	.21395	.05895	.01569	-.00569	.00037	-.00302	.04423	.00739	-.06111
10.125	6.571	.00945	.32128	.04835	.01540	-.00619	.00027	-.00309	.04417	.00936	-.05070
10.145	8.876	.01083	.42867	.03500	.01669	-.00680	.00015	-.00322	.04392	.00902	-.03704
9.996	11.103	.01239	.53935	.02120	.01745	-.00799	.00014	-.00258	.04319	.00947	-.02060
10.137	13.350	.01476	.66780	.00699	.01430	-.00909	.00007	-.00186	.04265	.00975	-.00235
10.072	15.885	.01697	.82144	.01117	-.00096	-.00932	-.00069	-.00034	.04236	.01141	.00341
10.100	18.152	.01813	.92416	.01747	.00087	-.00861	-.00081	-.00199	.05472	.01217	.06845
10.071	20.485	.01815	1.04742	.02119	-.00523	-.01080	-.00050	.00150	.05876	.01280	.10116
10.028	22.856	.01756	1.21092	.01457	-.01497	-.00895	-.00132	.00266	.06287	.01547	.11453
9.924	25.196	.01588	1.36616	.00521	-.01763	-.00756	-.00170	-.00325	.06620	.01876	.12670
9.920	27.396	.01502	1.41156	.00482	.01377	-.01179	.00091	-.00803	.07537	.01649	.10811
GRADIENT		.00060	.04504	-.00123	-.00023	-.00042	.00004	-.00004	-.00036	.00010	.00188

RUN NO. 114/ 0 RV/L = 12.13 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB	CMR	CHET
12.167	-2.641	.00481	-.10042	.06698	.01726	-.00278	.00006	-.00285	.04486	.01018	-.07320
12.099	-1.389	.00547	-.04301	.06899	.01670	-.00321	.00008	-.00273	.04681	.01011	-.07370
12.044	-.300	.00602	.00665	.06932	.01621	-.00355	.00009	-.00281	.04490	.00985	-.07207
12.074	.938	.00683	.06277	.06850	.01579	-.00404	.00012	-.00287	.04444	.01025	-.06971
12.093	2.081	.00752	.11287	.06584	.01591	-.00453	.00020	-.00291	.04392	.01032	-.06751
11.950	4.306	.00895	.21373	.05900	.01556	-.00567	.00031	-.00303	.04365	.01071	-.06214
12.139	6.804	.01067	.31927	.04796	.01510	-.00635	.00024	-.00305	.04329	.01099	-.05109
12.176	11.258	.01426	.54197	.01974	.01738	-.00805	.00016	-.00251	.04270	.01077	-.02007
11.852	13.567	.01556	.66369	.00502	.01607	-.01029	.00032	-.00162	.04474	.01095	.00145
12.135	16.097	.01936	.82315	.01008	.00664	-.00891	-.00066	-.00015	.04794	.01283	.03174
11.846	18.251	.01799	.92005	.00396	.00396	-.00850	-.00116	-.00157	.05419	.01421	.06129
12.092	20.631	.02135	1.05218	.02143	-.00708	-.01215	-.00012	.00083	.05764	.01477	.09997
11.788	23.046	.02100	1.22466	.01305	-.01691	-.01197	-.00056	.00173	.06306	.01638	.11583
12.130	25.857	.02241	1.38462	.00429	-.02117	-.01206	-.00063	-.00073	.06816	.01709	.12664
GRADIENT		.00060	.04515	-.00118	-.00024	-.00041	.00004	-.00005	-.00006	.00009	.00189

OA17, LIFT138, ORB2A, (810C50774 M3) (NOTE18) (VSR5)

(ZPP027) (16 OCT 73)

REFERENCE DATA

SRF = 87.1940 84.1N. 108P = 13.1469 INCHES
 LRF = 19.9245 INCHES 108P = .0000 INCHES
 BRF = 14.0502 INCHES 208P = 6.0000 INCHES
 SCALE = .0190 SCALE

RUN NO. 111/ 0 RN/L = 2.39 GRADIENT INTERVAL = -5.00/ 5.00

RM/L	ALPHA	CL	CD	L/D	CAC	CPB	CHCI	CHCO	CPC	CPVT	CPM
2.409	-2.496	-0.0930	.07371	-1.34720	.00012	-.25854	-.09011	-.02542	-.25641	-.59557	.03068
2.398	-1.433	-.05176	.07239	-.71509	.00019	-.25568	-.05041	-.02480	-.25227	-.60097	.03149
2.403	-.367	-.00294	.07106	-.04143	.00030	-.25606	-.09025	-.02439	-.25076	-.60215	.02997
2.402	.707	.04332	.07066	.61414	-.00075	-.25262	-.03008	-.02374	-.26603	-.60136	.02841
2.402	1.740	.08973	.07170	1.25144	.00058	-.25775	-.09050	-.02297	-.24749	-.60911	.02436
2.401	3.866	.18148	.07563	2.39944	.00117	-.25506	-.04836	-.01832	-.24669	-.59866	.01247
2.398	5.947	.27665	.07970	3.47126	-.00460	-.24724	-.04642	-.01372	-.26132	-.60501	-.00563
2.398	8.070	.37437	.09233	4.05447	-.00124	-.24629	-.03675	-.00949	-.25063	-.58626	-.02232
2.405	10.200	.47500	.11211	4.23708	.00009	-.25494	-.02557	-.00156	-.25328	-.58314	-.06757
2.402	12.314	.58169	.14000	4.15497	-.00036	-.25433	-.01604	.00600	-.26075	-.59355	-.10512
2.394	14.510	.69044	.17614	3.91991	-.00022	-.27115	-.00747	.01555	-.27509	-.57380	-.14711
2.396	16.590	.80012	.22094	3.62142	.00022	-.27511	.00136	.02400	-.27110	-.56673	-.19014
2.416	18.722	.89977	.29227	3.07680	.00100	-.29382	.01774	.03158	-.27610	-.54979	-.22671
2.394	20.881	.96953	.35820	2.76254	.00110	-.31284	.03429	.04185	-.29327	-.52468	-.26202
2.401	22.983	1.06205	.44890	2.36590	-.00031	-.37023	.06265	.06022	-.37581	-.48993	-.45529
2.397	25.018	1.13691	.53578	2.12569	.00002	-.40203	.06034	.07895	-.34828	-.50477	-.45174
2.394	27.079	1.16452	.59766	1.94646	-.00068	-.41980	.06323	.08363	-.43554	-.53600	-.44261
GRADIENT		.04415	.00027	.59361	.00005	.00034	.00024	.00154	.00122	-.00069	-.00285

RUN NO. 112/ 0 RN/L = 4.63 GRADIENT INTERVAL = -5.00/ 5.00

RM/L	ALPHA	CL	CD	L/D	CAC	CPB	CHCI	CHCO	CPC	CPVT	CPM
4.674	-2.511	-.08766	.07195	-1.21631	-.00008	-.26867	-.04858	-.02579	-.27012	-.58223	.02204
4.671	-.333	.00690	.07001	.14137	.00013	-.26785	-.04848	-.02441	-.26562	-.60229	.02145
4.673	.787	.05915	.07031	.84135	-.00069	-.26572	-.04809	-.02276	-.26156	-.60297	.01719
4.659	1.892	.10543	.07156	1.47344	-.00034	-.26047	-.04824	-.02116	-.26649	-.61816	.01460
4.669	4.021	.20110	.07415	2.71197	-.00022	-.26100	-.04626	-.01714	-.26492	-.59591	.00346
4.673	6.128	.29700	.08246	3.60175	-.00001	-.26207	-.04236	-.01177	-.26229	-.58890	-.00092
4.672	8.309	.39558	.09607	4.11759	-.00059	-.25219	-.03236	-.00846	-.26266	-.59746	-.03584
4.662	10.475	.49672	.11665	4.25603	-.00025	-.26268	-.02212	-.00235	-.26705	-.60364	-.06006
4.680	12.636	.60310	.14613	4.12703	.00026	-.27463	-.01104	.00402	-.26998	-.58731	-.11268
4.665	14.825	.72093	.18795	3.83569	-.00151	-.26640	-.00065	.01635	-.31331	-.59391	-.16382
4.675	17.071	.84237	.24560	3.42981	.00074	-.29764	.01022	.02393	-.28433	-.52824	-.21144
4.647	19.215	.93818	.31804	2.94988	.00098	-.31569	.02208	.03561	-.29623	-.55482	-.25471
4.672	21.402	1.00206	.40190	2.49330	.00116	-.35727	.04304	.05678	-.33101	-.48646	-.39050
4.666	23.556	1.09650	.48954	2.23986	.00245	-.36831	.03264	.06643	-.34463	-.51170	-.44659
4.664	25.735	1.17030	.56912	2.05632	.00285	-.42134	.06728	.06662	-.37066	-.54602	-.45531
4.634	27.823	1.17272	.61816	1.89711	.00406	-.47097	.06574	.06219	-.39681	-.59354	-.37624
GRADIENT		.04416	.00037	.60255	-.00004	.00139	.00033	.00134	.00166	-.00253	-.00267

PARAMETRIC DATA

BETA = .000 MACH = .250
 ELEVTR = .000 AILRON = .000
 RUDDER = .000 BOFLAP = -14.250
 SPOBRK = 24.920

QM17, LPT1138, ORB2A, (B1DC307F4 M3) (M07E18) (V0R5)

(ZPP027) (16 OCT 73)

REFERENCE DATA

SREF = 97.1900 SQ. IN. XPRP = 13.1489 INCHES
 LREF = 19.9245 INCHES YPRP = .0000 INCHES
 BREF = 14.0502 INCHES ZPRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .250
 ELEVTR = .000 AILRON = .000
 RUDDER = .000 BDFLAP = -14.250
 SPOBRK = 24.920

RUN NO. 113/ 0 RV/L = 9.92 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CHEO	CPC	CPVT	CPW
10.124	-2.828	-.09427	.07167	-1.31530	.00025	-.28952	-.04846	-.02573	-.28496	-.62724	.01455
10.164	-1.308	-.03529	.06994	-.50457	.00034	-.28064	-.04809	-.02452	-.27111	-.61698	.01459
10.190	-1.240	.01147	.06943	-.16523	.00052	-.27968	-.04758	-.02338	-.27052	-.60746	.01762
10.217	.908	.08222	.06958	.89424	.00010	-.27339	-.04693	-.02192	-.27359	-.60650	.02875
10.005	1.969	.10781	.07013	1.53728	-.00052	-.27162	-.04667	-.02062	-.28089	-.57767	.00821
10.201	4.278	.20896	.07475	2.79547	-.00008	-.27307	-.04474	-.01637	-.27454	-.60709	-.00443
10.125	6.571	.31364	.08479	3.69882	.00039	-.27270	-.03899	-.01171	-.26576	-.63264	-.02361
10.145	8.876	.41813	.10073	4.15117	-.00006	-.27113	-.03097	-.00606	-.27255	-.60695	-.05128
9.996	11.103	.52517	.12467	4.21242	-.00044	-.26660	-.02143	.00083	-.27441	-.58994	-.08365
10.157	13.530	.64775	.16285	3.98241	.00001	-.26305	-.00985	.01220	-.28292	-.60421	-.14657
10.072	15.885	.78702	.23558	3.34076	.00053	-.25534	.00794	.02546	-.28910	-.57204	-.21679
10.100	18.152	.87272	.30451	2.86598	.00102	-.33778	.02593	.04052	-.31964	-.57981	-.30424
10.071	20.485	.97377	.38641	2.52005	.00180	-.36272	.04178	.05938	-.33066	-.56233	-.38406
10.028	22.856	1.11019	.48377	2.29487	.00300	-.38810	.04137	.07316	-.33476	-.53248	-.41929
9.924	25.196	1.23397	.58631	2.10464	.00195	-.40869	.03425	.09245	-.37394	-.50070	-.48223
9.920	27.396	1.25103	.65380	1.91348	.00082	-.46330	.01511	.09100	-.45427	-.55231	-.51443
GRADIENT		.04386	.00044	.59943	-.00010	.00235	.00053	.00134	.00046	.00413	-.00264

RUN NO. 114/ 0 RV/L = 12.13 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CHEO	CPC	CPVT	CPW
12.167	-2.841	-.09722	.07154	-1.35907	-.00009	-.27694	-.04843	-.02676	-.27861	-.60034	.01474
12.098	-1.389	-.04133	.06991	-.59121	.00034	-.28775	-.04816	-.02554	-.28174	-.57148	.01898
12.044	-.500	.00701	.06929	.10121	-.00014	-.27717	-.04766	-.02441	-.27973	-.62639	.01163
12.074	.938	.06164	.06952	.88662	.00004	-.27434	-.04692	-.02279	-.27358	-.62294	.01134
12.093	2.081	.11040	.06990	1.57948	-.00068	-.26866	-.04619	-.02132	-.28074	-.57374	.00500
11.930	4.308	.20870	.07488	2.78715	-.00008	-.28305	-.04495	-.01718	-.28440	-.59186	-.00525
12.139	6.804	.31164	.08436	3.69424	.00005	-.27957	-.03871	-.01238	-.27863	-.61477	-.02321
12.176	11.296	.52761	.12553	4.20317	-.00033	-.26362	-.02015	.00008	-.26948	-.62260	-.08437
11.892	13.567	.64419	.16762	4.01074	-.00119	-.27618	-.00984	.01130	-.29744	-.62032	-.13615
12.135	16.097	.78809	.23790	3.51263	-.00029	-.29597	.00709	.02465	-.30117	-.61504	-.21565
11.948	18.251	.86873	.30342	2.86308	.00056	-.33452	.02281	.03848	-.32416	-.57912	-.28709
12.092	20.631	.97715	.39079	2.50043	.00056	-.35582	.04154	.05843	-.34556	-.55892	-.38289
11.768	23.046	1.12199	.49150	2.28280	.00130	-.36930	.04154	.07429	-.36623	-.53660	-.42616
12.130	25.657	1.24824	.60339	2.06541	.00280	-.42076	.03182	.09482	-.37092	-.55688	-.49464
GRADIENT		.04396	.00045	.60160	-.00005	.00037	.00052	.00136	-.00052	.00101	-.00315

DATE 15 NOV 73

TABULATED SOURCE DATA - QAI7

PAGE 71

QAI7,LTPT136,CRB2A,(B10C3D7F4 M3)(W87E16)(V3R5)

(RPP028) (16 OCT 73)

REFERENCE DATA

SREF = 87.1560 50. IN. XMRP = 13.1469 INCHES
 LREF = 19.9245 INCHES YMRP = .0000 INCHES
 SREF = 14.0502 INCHES ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .256
 ELEVR = .000 AILRON = .000
 RUDDER = -10.000 BDFLAP = -14.250
 SPOBRK = 24.920

RUN NO. 113/ 0 RN/L = 4.83 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB	QCR	QCHT
4.898	-1.360	.00729	-.03909	.07307	.01571	-.03165	.01246	-.00921	.04442	.09973	-.07592
4.807	-.281	.00756	.01152	.07355	.01490	-.03230	.01230	-.00922	.04343	.09908	-.07516
4.885	-.609	.00828	.06173	.07255	.01448	-.03268	.01219	-.00916	.04371	.09849	-.07186
4.681	1.645	.00845	.10990	.07099	.01402	-.03271	.01207	-.00913	.04368	.09807	-.06962
4.664	4.009	.00899	.20728	.06332	.01439	-.03320	.01190	-.00900	.04374	.09815	-.06444
4.693	6.172	.00957	.30688	.05327	.01449	-.03329	.01160	-.00881	.04363	.09679	-.05618
4.642	8.319	.01033	.40937	.04092	.01554	-.03420	.01136	-.00861	.04200	.09627	-.04279
4.671	10.323	.01115	.51414	.02710	.01751	-.03475	.01111	-.00838	.04271	.09609	-.02577
4.662	12.710	.01202	.62752	.01282	.01705	-.03561	.01086	-.00741	.04259	.09639	-.00867
4.665	14.891	.01284	.74927	-.00056	.01329	-.03626	.01055	-.00695	.04574	.09714	.01501
4.644	17.060	.01382	.87673	-.01170	.00967	-.03682	.00984	-.00594	.04920	.10026	.03146
4.646	19.226	.01510	.99893	-.00874	.00595	-.03954	.01036	-.00255	.05120	.10377	.05213
4.638	21.379	.01481	1.09081	.01071	.00817	-.04411	.01299	-.00676	.05751	.10946	.09677
4.651	23.562	.01805	1.20227	.01420	.00081	-.04834	.01272	-.00592	.06243	.11422	.11913
4.656	25.756	.01966	1.30651	.00756	.00580	-.04979	.01191	-.00383	.06776	.12175	.13260
4.627	27.825	.01997	1.32990	.00338	.03545	-.05499	.01427	-.00292	.07367	.12532	.12592
GRADIENT	.00333	.04588	-.00185	-.00024	-.00024	-.00024	-.00010	.00004	-.00007	-.00030	.00224

RUN NO. 116/ 0 RN/L = 10.14 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB	QCR	QCHT
10.322	-2.643	.00924	-.10000	.07001	.01906	-.02727	.01210	-.00904	.04548	.10178	-.07577
10.314	-1.401	.00992	-.04257	.07181	.01838	-.02732	.01191	-.00900	.04556	.10127	-.07450
10.269	-.325	.01041	.00618	.07215	.01786	-.02738	.01177	-.00895	.04639	.10075	-.07287
10.281	.685	.01107	.06069	.07101	.01769	-.02754	.01164	-.00890	.04536	.10003	-.07090
10.251	1.962	.01157	.10862	.06862	.01759	-.02766	.01152	-.00883	.04583	.09921	-.06866
10.333	4.277	.01275	.21275	.06147	.01715	-.02776	.01124	-.00861	.04673	.09804	-.06254
10.239	6.553	.01386	.31944	.05071	.01661	-.02801	.01092	-.00848	.04554	.09719	-.05238
10.234	8.841	.01515	.42571	.03730	.01622	-.02817	.01055	-.00830	.04300	.09609	-.03882
10.220	11.176	.01737	.53970	.02291	.01696	-.02826	.01037	-.00763	.04462	.09616	-.02180
10.243	13.468	.01934	.66260	.00904	.01613	-.03000	.01011	-.00698	.04707	.09624	-.00014
10.232	15.856	.02209	.81687	.01271	.01108	-.03032	.00928	-.00534	.04891	.09801	.03111
10.219	18.122	.02129	.92119	.01933	.00276	-.03006	.00935	-.00705	.05383	.10235	.06386
10.214	20.464	.02367	1.04529	.02442	-.00360	-.03259	.00982	-.00333	.05863	.10962	.09843
10.175	22.916	.02386	1.21601	.01767	-.01457	-.03213	.00935	-.00189	.06249	.11404	.11227
10.148	25.267	.02315	1.36930	.00831	-.01025	-.03114	.00891	-.00432	.06513	.11701	.12368
10.136	27.444	.02127	1.41216	.00667	.01704	-.03441	.01130	-.01242	.07766	.11963	.10464
GRADIENT	.00050	.04512	-.00127	-.00127	-.00026	-.00026	-.00012	.00006	.00014	-.00056	.00191

0A17,LTPT136,OR82A,(B1DC3D7F4 M3)(M87E18)(VSR5)

(ZPP028) (16 OCT 73)

REFERENCE DATA

SREF = 87.1560 90.1N. XMRP = 13.1489 INCHES
 LREF = 19.9245 INCHES YMRP = .0000 INCHES
 BREF = 14.0502 INCHES ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .256
 ELEVTR = .000 AILRON = .000
 RUDDER = -10.000 BOFLAP = -14.240
 SPOBRK = 24.540

RUN NO. 115/ 0 RN/L = 4.63 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CHEO	CPC	CPVT	CPW
4.696	-1.360	-.03735	.07397	-1.50485	-.00061	-.27425	-.04882	-.02711	-.28508	-.44793	.02068
4.607	-.281	.01188	.07350	.16163	-.00078	-.26810	-.04876	-.02641	-.28205	-.44535	.01944
4.685	-.829	.06370	.07341	.82680	-.00039	-.26983	-.04737	-.02449	-.27685	-.41623	.01581
4.681	1.845	.10796	.07449	1.44390	-.00065	-.26987	-.04686	-.02276	-.28125	-.44222	.01218
4.664	4.009	.20234	.07766	2.60352	-.00046	-.27000	-.04547	-.01897	-.27814	-.43224	.00132
4.695	6.172	.29938	.08595	3.48299	.00035	-.26933	-.04100	-.01519	-.26309	-.41004	-.01383
4.642	8.319	.39914	.09972	4.00259	-.00050	-.26928	-.03188	-.01091	-.26807	-.43111	-.03871
4.671	10.523	.50055	.12054	4.15266	-.00081	-.26365	-.02295	-.00283	-.27803	-.42780	-.06087
4.682	12.710	.60932	.15058	4.04648	-.00102	-.26296	-.01331	-.00464	-.28115	-.43022	-.11415
4.665	14.891	.72426	.19200	3.77213	.00075	-.26239	-.00291	.01792	-.26896	-.43195	-.16099
4.644	17.060	.84158	.24602	3.42377	.00042	-.30376	.00718	.02427	-.29631	-.43979	-.20755
4.646	19.226	.94609	.32068	2.95324	.00099	-.31611	.01768	.03445	-.29846	-.43288	-.26513
4.631	21.379	1.00253	.40397	2.48173	.00117	-.35501	.04078	.05599	-.33415	-.47612	-.39290
4.621	23.582	1.09618	.49400	2.21900	.00082	-.38544	.05080	.06833	-.37080	-.48927	-.44387
4.636	25.756	1.17343	.57454	2.04238	.00221	-.41834	.06599	.08680	-.37897	-.55310	-.47543
4.627	27.825	1.17456	.62374	1.88310	.00340	-.45480	.06392	.08200	-.39424	-.57486	-.42512
GRADIENT		.04464	.00072	.57988	.00033	.00046	.00046	.00157	.00109	.00249	-.00372

RUN NO. 116/ 0 RN/L = 10.14 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CHEO	CPC	CPVT	CPW
10.322	-2.643	-.09666	.07434	-1.29672	.00004	-.28076	-.04957	-.02620	-.28001	-.40953	.01235
10.314	-1.401	-.04080	.07283	-.56028	-.00050	-.28129	-.04929	-.02522	-.29027	-.45277	.01270
10.289	-.325	.00659	.07212	.09136	-.00008	-.28640	-.04889	-.02398	-.28790	-.40603	.00954
10.281	.885	.05958	.07194	.82821	.00016	-.28004	-.04832	-.02258	-.27716	-.42779	.00378
10.251	1.962	.10620	.07250	1.46496	-.00009	-.28292	-.04772	-.02094	-.28452	-.43768	.00199
10.333	4.277	.20757	.07716	2.69015	-.00014	-.28846	-.04588	-.01666	-.29089	-.47211	-.01002
10.239	6.553	.31157	.08684	3.58800	.00017	-.28112	-.04046	-.01192	-.27991	-.43069	-.02134
10.234	8.841	.41492	.10229	4.05649	-.00081	-.26544	-.03226	-.00636	-.27991	-.44353	-.06858
10.220	11.176	.52503	.12707	4.13162	.00013	-.27548	-.02206	.00114	-.27316	-.43478	-.14577
10.243	13.468	.64233	.16317	3.93776	.00054	-.29060	-.01206	.01132	-.28099	-.43478	-.20396
10.232	15.856	.78231	.23541	3.32312	.00034	-.30195	.00602	.02509	-.29588	-.45299	-.30581
10.219	18.122	.86942	.30510	2.84962	.00095	-.33233	.02378	.04008	-.31551	-.47135	-.36573
10.214	20.464	.97079	.38833	2.49989	.00145	-.36196	.03984	.05859	-.33619	-.49010	-.41353
10.175	22.916	1.11316	.48976	2.27285	.00125	-.38580	.03861	.07366	-.36354	-.49010	-.45357
10.148	25.267	1.23475	.59198	2.08579	.00187	-.40210	.03124	.09265	-.36878	-.53107	-.50022
10.136	27.444	1.24925	.65853	1.89701	.00145	-.47945	.01406	.09158	-.45370	-.56680	-.50022
GRADIENT		.04389	.00036	.58012	.00001	-.00088	.00053	.00138	-.00071	-.00191	-.00333

DATE 15 NOV 73

TABULATED SOURCE DATA - OA17

PAGE 73

OA17,LTPT138,ORBEA,(B10C507F4 M3) (N87E18) (V5R5)

(RPPD29) (16 OCT 73)

REFERENCE DATA

SRP = 87.1560 SQ.IN. XMRP = 13.1469 INCHES
 LREF = 19.9245 INCHES YMRP = .0000 INCHES
 BRP = 14.0502 INCHES ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .251
 ELEVTR = 9.800 AIRLON = .000
 RUDDER = .000 BDFLAP = -14.250
 SPDRK = 24.920

RUN NO. 117/ 0 RV/L = 4.79 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CTN	CBL	CAB	CHR	CHT
4.698	-2.357	.00471	.10404	.08959	-.08081	-.00997	.00205	.00035	.04976	.00692	.03907
4.746	-1.158	.00542	.16072	.09069	-.08207	-.01104	.00220	.00028	.04964	.00796	.04294
4.746	-.125	.00626	.20682	.09054	-.08228	-.01252	.00241	.00043	.05049	.00707	.04673
4.724	.975	.00665	.25872	.08941	-.08308	-.01325	.00251	.00030	.04909	.00686	.05192
4.715	2.148	.00715	.31204	.08678	-.08322	-.01441	.00276	.00038	.05006	.00635	.05779
4.732	4.250	.00790	.40660	.07926	-.08269	-.01560	.00292	.00075	.04891	.00620	.06782
4.755	6.419	.00815	.51061	.06864	-.08397	-.01569	.00282	-.00030	.04832	.00772	.08173
4.677	8.503	.00814	.60983	.05584	-.08176	-.01588	.00272	-.00036	.04642	.00693	.09431
4.728	10.710	.00939	.72086	.04165	-.08149	-.01752	.00282	-.00015	.04595	.00696	.11353
4.743	12.910	.01058	.83994	.02758	-.08438	-.01898	.00275	.00011	.04679	.00761	.13482
4.715	15.199	.01031	.97720	.01485	-.09231	-.01761	.00204	-.00038	.05086	.00796	.16696
4.702	17.351	.01105	1.10672	.00936	-.09231	-.01634	.00066	.00137	.05236	.00897	.18528
4.744	19.533	.01241	1.19955	.00514	-.09342	-.02210	.00291	.00810	.05857	.00947	.22006
4.695	21.629	.01054	1.29198	.00923	-.09501	-.01937	.00254	.00301	.06526	.01028	.25071
4.756	23.844	.01601	1.41014	.04004	-.09878	-.02720	.00281	.00267	.06863	.01320	.26237
4.769	25.914	.02070	1.49251	.03223	-.08201	-.03200	.00188	.00685	.07710	.01320	.26340
		.00048	.04578	-.00158	-.00028	-.00087	.00014	.00305	-.00011	.00017	.00442

RUN NO. 118/ 0 RV/L = 10.02 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CTN	CBL	CAB	CHR	CHT
10.285	-2.255	.00986	.10363	.08898	-.07850	-.00950	.00200	.00073	.05167	.00769	.03776
10.224	-1.015	.01091	.16057	.08973	-.07902	-.01038	.00210	.00076	.05022	.00770	.04111
10.271	.057	.01195	.20977	.08927	-.07959	-.01114	.00221	.00078	.05327	.00748	.04499
10.266	1.216	.01272	.26267	.08766	-.08009	-.01188	.00237	.00089	.05134	.00750	.04883
10.184	4.611	.01515	.41664	.07643	-.08064	-.01399	.00265	.00129	.04935	.00752	.06758
10.252	6.927	.01526	.52812	.06451	-.08214	-.01361	.00247	.00045	.04916	.00717	.08191
10.192	9.238	.01559	.64056	.05001	-.08140	-.01368	.00232	.00017	.04853	.00710	.09434
10.233	11.524	.01796	.76028	.03590	-.08378	-.01511	.00233	.00058	.05061	.00772	.11681
10.234	13.934	.01855	.89465	.02333	-.08973	-.01418	.00158	.00028	.05210	.00832	.14926
10.152	16.247	.02020	1.04560	.03462	-.10350	-.01271	.00003	.00033	.05556	.00929	.18661
10.174	18.546	.01845	1.13159	.04611	-.09711	-.01154	.00004	.00020	.06048	.00776	.22204
10.174	20.845	.01945	1.28161	.04824	-.11148	-.01249	.00010	.00284	.06374	.00975	.25147
10.044	23.233	.01786	1.44618	.04058	-.11948	-.01021	-.00084	.00263	.06940	.01094	.26319
10.023	25.571	.00747	1.55389	.03098	-.10074	-.00232	-.00148	-.00617	.07038	.01060	.25866
		.00076	.04557	-.00195	-.00031	-.00065	.00010	.00008	-.00030	-.00005	.00443

CA17,LTPT138,ORB2A,810C507F4 MS (M87E18) (V5K5)

(ZFP029) (16 OCT 73)

REFERENCE DATA

SREF = 87.1560 IN. X RP = 13.1469 INCHES
 LREF = 19.9245 INCHES YRP = .0000 INCHES
 BREF = 14.0502 INCHES ZRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .251
 ELEVT = 9.800 AILRON = .000
 RUDDER = .000 BDFLAP = -14.250
 SPDBRK = 24.920

RUN NO. 117/ 0 RN/L = 4.79 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CHEO	CPC	CPVT	CPW
4.696	-2.357	.10764	.08523	1.26284	-.00018	-.30719	.02540	.01366	-.31044	-.60804	.00587
4.746	-1.158	.16252	.06742	1.85900	-.00064	-.30642	.02657	.01637	-.31781	-.59801	-.00035
4.746	-.125	.20702	.09009	2.29788	.00037	-.31172	.02699	.01974	-.30513	-.60757	-.01033
4.724	.975	.25716	.09380	2.74157	.00035	-.30304	.02856	.02336	-.29675	-.57029	-.02121
4.715	2.148	.30857	.09842	3.13327	.00028	-.30904	.03003	.02777	-.30406	-.63000	-.03432
4.732	4.250	.39961	.10917	3.66025	.00042	-.30193	.03333	.03447	-.29438	-.62118	-.06433
4.735	6.419	.49974	.12529	3.98859	-.00052	-.29832	.03911	.03447	-.30750	-.63465	-.09231
4.677	8.503	.59487	.14540	4.03133	.00019	-.28660	.04760	.04671	-.28329	-.61189	-.14393
4.728	10.710	.70057	.17489	4.00580	-.00071	-.28365	.06039	.05315	-.29636	-.61315	-.19457
4.743	12.910	.81259	.21436	3.79083	-.00081	-.28884	.07069	.06412	-.30331	-.60029	-.23938
4.715	15.199	.93912	.27053	3.47141	.00010	-.31400	.08905	.07791	-.31228	-.58503	-.28187
4.702	17.351	1.05357	.33897	3.10812	-.00009	-.32325	.10255	.08273	-.32494	-.60086	-.31388
4.744	19.533	1.12211	.42477	2.64170	.00045	-.36157	.12756	.09250	-.35357	-.55664	-.36974
4.695	21.629	1.18655	.51269	2.31437	.00168	-.40290	.13912	.11159	-.37308	-.55236	-.54625
4.756	23.844	1.27359	.60667	2.09931	.00176	-.42366	.13961	.12276	-.39236	-.54980	-.61135
4.769	25.914	1.32835	.68125	1.94987	.00193	-.47597	.14898	.11441	-.44157	-.56369	-.56468
GRADIENT		.04418	.00363	.36296	.00012	.00070	.00120	.00323	.00291	-.00305	-.01072

RUN NO. 118/ 0 RN/L = 10.02 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CHEO	CPC	CPVT	CPW
10.285	-2.255	.10705	.08483	1.26191	-.00049	-.31897	.02193	.01584	-.32774	-.62583	.00363
10.224	-1.015	.18214	.08687	1.86642	-.00059	-.31002	.02260	.01851	-.32056	-.61917	-.01060
10.271	.057	.20968	.08948	2.34333	.00054	-.32898	.02344	.02155	-.31932	-.59701	-.02207
10.266	1.218	.26075	.09323	2.79684	-.00024	-.31693	.02450	.02533	-.32120	-.62715	-.03110
10.184	4.611	.40914	.10968	3.73340	-.00087	-.30465	.03051	.03717	-.32010	-.61086	-.06887
10.252	6.927	.51649	.12773	4.04343	.00034	-.30351	.03568	.04623	-.31729	-.61620	-.09928
10.192	9.238	.62422	.15219	4.10150	-.00100	-.29957	.04518	.04915	-.31729	-.64686	-.14274
10.233	11.524	.73778	.18707	3.94393	.00037	-.31246	.05865	.05815	-.30580	-.60224	-.19453
10.152	16.247	.99416	.23807	3.62370	.00038	-.32166	.07804	.07122	-.31497	-.61132	-.24387
10.219	18.546	1.05616	.32577	3.05173	.00013	-.34297	.10638	.08023	-.34062	-.60930	-.30402
10.174	20.845	1.18056	.40363	2.62159	.00034	-.37338	.12917	.09287	-.36739	-.53934	-.42984
10.044	23.233	1.31291	.50113	2.35578	.00163	-.39332	.13873	.11274	-.36451	-.53285	-.46880
10.023	25.571	1.38832	.60776	2.16025	.00163	-.42842	.12914	.13405	-.39942	-.52449	-.53796
GRADIENT		.04398	.69866	1.98711	.00050	-.43449	.11023	.14843	-.42560	-.53033	-.50803
			.00371	.35364	-.00006	.00185	.00128	.00315	.00076	.00133	-.01042

DATE 15 NOV 73

TABULATED SOURCE DATA - OA17

PAGE 75

OA17,LTPT139,CR82A,(B10C507F4 M3) (M0TE18) (VSR5)

(RPPO30) (16 OCT 73)

PARAMETRIC DATA

REFERENCE DATA

SREF = 87.1560 SQ.IN. XGRP = 13.1469 INCHES
 LREF = 19.9245 INCHES YGRP = .0000 INCHES
 BREF = 14.0502 INCHES ZGRP = 6.0000 INCHES
 SCALE = .0150 SCALE

BETA = .000 MACH = .253
 ELEVR = 5.150 AIRLON = .000
 RUDDER = .000 BDFLAP = -14.250
 SPDBRK = 24.920

RUN NO. 119/ 0 RV/L = 4.80 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB	CHR	CHET
4.804	-2.354	.00291	.01440	.07634	-.03424	-.00496	.00064	-.00047	.04656	.01296	-.01609
4.790	-1.320	.00317	.06141	.07698	-.03498	-.00590	.00075	-.00045	.04698	.01236	-.01382
4.826	-.190	.00393	.11226	.07677	-.03524	-.00676	.00090	-.00049	.04650	.01179	-.01150
4.819	.869	.00404	.16200	.07592	-.03562	-.00709	.00100	-.00048	.04683	.01256	-.00772
4.817	1.956	.00454	.21122	.07396	-.03610	-.00798	.00113	-.00052	.04701	.01248	-.00444
4.825	4.100	.00531	.30690	.06723	-.03569	-.00935	.00134	-.00043	.04515	.01247	-.00463
4.822	6.316	.00560	.41136	.05699	-.03616	-.00979	.00136	-.00057	.04506	.01256	.01797
4.826	8.480	.00603	.51295	.04430	-.03419	-.01030	.00132	-.00080	.04477	.01334	.03392
4.820	10.682	.00659	.62009	.03023	-.03247	-.01091	.00121	-.00196	.04403	.01212	.04935
4.822	12.776	.00749	.73013	.01723	-.03368	-.01210	.00118	-.00223	.04618	.01246	.06889
4.812	14.937	.00805	.85588	.00452	-.03897	-.01225	.00079	-.00011	.04871	.01355	.09173
4.801	17.167	.00922	.99072	-.00219	-.04601	-.01375	.00065	.00218	.04985	.01410	.11927
4.820	19.361	.01063	1.10511	.00606	-.04587	-.01818	.00189	.00747	.05652	.01648	.14525
4.808	21.437	.00886	1.18524	.02461	-.04715	-.01563	.00186	-.00274	.06163	.01474	.18453
4.811	23.617	.01429	1.32656	.02293	-.05350	-.02450	.00248	.00225	.06656	.01844	.20015
4.802	25.906	.01845	1.42125	.01324	-.043.2	-.02962	.00185	.00648	.07383	.02063	.20700
		.00036	.04540	-.00139	-.00023	-.00069	.00011	.00000	-.00019	-.00002	.00320

RUN NO. 121/ 0 RV/L = 9.36 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB	CHR	CHET
9.430	-1.222	.00041	.00901	.01198	-.00428	-.00051	.00010	-.00006	.04648	.00060	-.00175
9.291	-.306	.00041	.01470	.00947	-.00416	-.00053	.00011	-.00006	.04849	.00096	-.00134
9.414	.702	.00070	.02089	.00665	-.00410	-.00080	.00013	-.00006	.04991	.00065	-.00107
9.423	1.782	.00080	.02760	.00339	-.00384	-.00090	.00014	-.00007	.04808	.00065	-.00048
9.374	3.766	.00087	.03964	-.00297	-.00373	-.00101	.00017	-.00006	.04737	.00071	.00033
9.356	5.854	.00104	.05229	-.01079	-.00350	-.00116	.00017	-.00007	.04662	.00082	.00223
9.395	7.872	.00111	.06440	-.01707	-.00319	-.00118	.00016	-.00013	.04699	.00073	.00416
9.402	9.860	.00125	.07684	-.02413	-.00291	-.00131	.00016	-.00007	.04687	.00076	.00635
9.409	11.953	.00136	.09121	-.03126	-.00305	-.00142	.00016	-.00006	.04675	.00073	.00823
9.399	13.961	.00156	.10903	-.03639	-.00309	-.00144	-.00013	-.00012	.05136	.00097	.01369
9.376	16.006	.00148	.11950	-.04084	-.00443	-.00114	-.00006	-.00013	.05329	.00092	.01779
9.394	18.026	.00162	.13211	-.04497	-.00524	-.00131	-.00004	.00026	.06145	.00122	.02245
9.363	20.107	.00151	.15099	-.05124	-.00664	-.00112	-.00010	.00041	.06340	.00125	.02412
9.373	22.126	.00100	.16761	-.05737	-.00693	-.00047	-.00022	-.00002	.06662	.00127	.02585
		.00069	.16858	-.06310	-.00166	-.00099	.00011	-.00119	.08163	.00136	.02155
9.357	24.261	.00010	.00614	-.00300	.00012	-.00011	.00001	-.00000	.00003	-.00001	.00042

GRADIENT

0A17.LTPT130,ORB2A,(B10C507F4 M3) (M87F18) (VSR5)

(ZFP030) (16 OCT 73)

REFERENCE DATA

SREF = 87.1560 SQ. IN. XMRP = 13.1469 INCHES
LREF = 19.9245 INCHES YMRP = .0000 INCHES
BREF = 14.0302 INCHES ZMRP = 6.0000 INCHES
SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .253
ELEVTR = 5.150 AIRRON = .000
RUDER = .000 BDFLAP = -14.250
SPDRK = 24.920

RUN NO. 119/ 0 RN/L = 4.80 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	CL	CD	L/D	CAC	CFB	CHEI	CHEO	CPC	CPVT	CPW
4.604	-2.354	.01752	.07568	.23156	-.00044	-.28744	-.01017	-.00592	-.29324	-.60843	.00986
4.790	-1.320	.06316	.07554	.83614	-.00016	-.29003	-.00961	-.00421	-.29329	-.60982	.00719
4.828	-.190	.11252	.07640	1.47270	-.00029	-.28709	-.00850	-.00301	-.29230	-.62403	.00337
4.819	.689	.16060	.07842	2.05052	.00004	-.28910	-.00750	-.00021	-.28834	-.59945	.00110
4.817	1.956	.20857	.08113	2.57091	.00022	-.29023	-.00702	.00258	-.28637	-.60288	-.00630
4.825	4.100	.30131	.08903	3.38536	-.00030	-.27872	-.00478	.00941	-.28399	-.60568	-.02623
4.822	6.316	.40260	.10189	3.95124	-.00019	-.27819	.00168	.01628	-.28158	-.63025	-.05065
4.826	9.480	.50381	.11946	4.19233	-.00021	-.27641	.01013	.02379	-.28013	-.62150	-.08132
4.820	10.682	.60374	.14465	4.17389	-.00036	-.27193	.01934	.03001	-.27833	-.59688	-.12502
4.822	12.776	.70824	.17826	3.97299	-.00022	-.28508	.02897	.03992	-.28893	-.59789	-.17476
4.812	14.957	.82572	.22527	3.66532	-.00035	-.30070	.04224	.04949	-.29448	-.60467	-.22377
4.801	17.167	.94723	.29032	3.26269	-.00017	-.30772	.06224	.05704	-.31076	-.60204	-.27017
4.820	19.361	1.04061	.37209	2.79678	.00127	-.34894	.07729	.06797	-.32626	-.59013	-.31322
4.806	21.437	1.09425	.45808	2.39927	.00111	-.38048	.09661	.08792	-.36082	-.52634	-.49300
4.811	23.817	1.20433	.55666	2.16348	.00211	-.41091	.10074	.09941	-.37339	-.52838	-.51828
4.802	25.906	1.27177	.63465	2.00391	.00361	-.45578	.11201	.09499	-.39159	-.54711	-.51706
GRADIENT		.04405	.00208	.49282	.00004	.00115	.00083	.00236	.00184	.00128	-.00540

RUN NO. 121/ 0 RN/L = 9.36 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	CL	CD	L/D	CAC	CFB	CHEI	CHEO	CPC	CPVT	CPW
9.430	-1.222	.00926	.01178	.78623	-.00041	-.28692	-.00132	-.00044	-.29429	-.61042	-.00110
9.291	-.306	.01475	.00939	1.57063	-.00007	-.29934	-.00127	-.00007	-.30057	-.59172	-.00453
9.414	.702	.02081	.00690	3.01365	.00084	-.30811	-.00115	.00008	-.29312	-.64350	-.00578
9.423	1.782	.02748	.00425	6.46598	-.00076	-.29681	-.00106	.00058	-.31028	-.60586	-.01503
9.374	3.766	.03973	.00036	-110.11520	.00076	-.29241	-.00085	.00118	-.27880	-.64148	-.03124
9.356	5.854	.05305	.00470	-11.28485	.00000	-.28780	.00002	.00221	-.28784	-.62280	-.06196
9.395	7.872	.06613	.00809	-8.15991	.00091	-.29010	.00111	.00305	-.27396	-.66281	-.08677
9.402	9.880	.07984	.01059	-7.93	.00018	-.28936	.00142	.00293	-.28622	-.59359	-.12755
9.409	11.953	.09571	.01169	-8.422	-.00029	-.28858	.00106	.00317	-.29371	-.59857	-.18199
9.399	13.981	.11459	.00897	-12.958	.00062	-.31706	.00719	.00670	-.30608	-.62242	-.23209
9.376	16.006	.12613	.00630	-20.01438	.00056	-.34131	.00959	.00820	-.33136	-.62935	-.34048
9.394	18.026	.13954	.00188	-74.16184	.00033	-.37936	.01213	.01033	-.35569	-.51431	-.44601
9.363	20.107	.15940	.00379	42.09673	.00133	-.39138	.01170	.01242	-.36771	-.54777	-.46497
9.373	22.126	.17687	.00999	17.70837	.00081	-.41125	.01059	.01525	-.39686	-.51384	-.46802
9.357	24.261	.17982	.01174	15.30025	.00330	-.50392	.00753	.01402	-.44517	-.52547	-.53663
GRADIENT		.00612	-.00243	-20.67509	.00015	-.00021	.00010	.00032	.00253	-.00662	-.00609

0417, LPT1139, ORB2A, (B10C507F4 MS) (MBTE18) (VSR3)

(RPP031) (16 OCT 73)

REFERENCE DATA

SROF = 87.1960 89.1M. 1088P = 13.1469 INCHES
 LROF = 19.9245 INCHES 1088P = .0000 INCHES
 BROF = 14.0902 INCHES 1088P = 6.0000 INCHES
 SCALE = .0130 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .254
 ELEVTR = .000 AILRON = 4.400
 RUDDER = .000 BOFLAP = -14.250
 SPOBRK = 24.920

RUN NO. 122/ 0 RM/L = 4.77 GRADIENT INTERVAL = -5.00/ 5.00

RM/L	ALPHA	BETA	CN	CA	CLA	CY	CYN	CBL	CAB	CHR	CHT
4.793	-2.450	.01084	-.08026	.07173	.01056	-.02183	.00430	.01771	.04422	.00876	-.11559
4.778	-1.440	.01131	-.03387	.07275	.01005	-.02265	.00438	.01799	.04304	.00840	-.11462
4.768	-.317	.01181	.01535	.07320	.00979	-.02367	.00455	.01830	.04198	.00813	-.11411
4.760	.934	.01260	.07356	.07221	.00978	-.02491	.00472	.01867	.04338	.00786	-.11361
4.784	2.010	.01327	.12112	.06975	.01018	-.02611	.00492	.01900	.04404	.00863	-.11297
4.761	4.066	.01401	.21449	.06258	.01085	-.02790	.00527	.01958	.04299	.00915	-.11023
4.808	6.199	.01554	.31105	.05307	.01138	-.03012	.00560	.02010	.04305	.01012	-.10371
4.705	8.369	.01563	.41369	.04089	.01293	-.03137	.00569	.02030	.04334	.00917	-.09445
4.752	10.510	.01672	.51462	.02731	.01556	-.03246	.00565	.01972	.04271	.00938	-.07987
4.770	12.725	.01804	.62854	.01309	.01563	-.03405	.00558	.02087	.04444	.01005	-.06374
4.776	14.868	.01889	.75167	-.00014	.01078	-.03488	.00555	.02121	.04474	.01084	-.04635
4.749	17.149	.01962	.89014	-.00999	.00308	-.03503	.00459	.02252	.04664	.01331	-.02380
4.795	19.432	.02111	1.01888	-.00406	-.00165	-.03525	.00374	.02537	.05169	.01339	.00318
4.760	21.466	.02099	1.08682	.01452	.00185	-.03698	.00486	.01716	.05746	.01300	.03330
4.732	23.638	.02478	1.22037	.01315	-.00780	-.04368	.00474	.02078	.06218	.01555	.05307
4.797	25.791	.02680	1.32919	.00537	-.02200	-.04239	.00273	.02424	.06763	.01874	.06843
4.765	27.919	.02208	1.36799	.00277	-.02560	-.03306	.00070	.02224	.07320	.01714	.07066
	GRADIENT	.00090	.04518	-.00137	.00006	-.00035	.00015	.00029	-.00004	.00007	.00077

OA17,LTPT136,ORBEA,(B1DC5D7F4 M3) (M07E10) (V9R1)

(ZPPOS1) (18 OCT 73)

REFERENCE DATA

SREF = 87.1960 SQ. IN. XMRP = 13.1469 INCHES
 LREF = 19.8243 INCHES YMRP = 1000 INCHES
 BREF = 14.0302 INCHES ZMRP = 6.0700 INCHES
 SCALE = .0150 SCALE

BETA = .000 MACH = .854
 ELEVTR = .000 AILRON = 4.400
 RUDDER = .000 BDFLAP = -14.250
 SPOBRK = 24.920

PARAMETRIC DATA

RUN NO. 122/ 0 RN/L = 4.77 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	CL	CD	L/D	CAC	CP8	CNEI	CNEO	CPC	CPVT	CPW
4.793	-2.450	-.07712	.07510	-1.02688	.00023	-.27297	-.07239	-.04319	-.26896	-.60025	.00966
4.778	-1.440	-.03403	.07362	-.46223	-.00008	-.26969	-.07213	-.04249	-.26706	-.60345	.00796
4.768	-.317	.01676	.07311	.22921	-.00057	-.25913	-.07248	-.04162	-.26932	-.60541	.00175
4.760	.934	.07238	.07340	.97805	-.00020	-.26779	-.07247	-.04114	-.27142	-.60441	.00059
4.764	2.010	.11860	.07396	1.96360	.00010	-.27187	-.07199	-.04058	-.27014	-.63429	-.00391
4.761	4.088	.27948	.07772	2.69554	.00017	-.26559	-.07129	-.03894	-.26237	-.81557	-.02311
4.808	6.199	.30350	.08635	3.51490	.00021	-.26575	-.06774	-.03597	-.26206	-.81679	-.04250
4.705	8.369	.40333	.10066	4.00682	.00008	-.26734	-.06262	-.03183	-.26608	-.59993	-.06650
4.752	10.510	.50101	.12072	4.15030	.00000	-.26366	-.05512	-.02475	-.25790	-.61242	-.11864
4.770	12.725	.61022	.15122	4.03524	-.00026	-.27434	-.04641	-.01733	-.27898	-.56342	-.17019
4.776	14.866	.72647	.19300	3.76419	-.00070	-.27618	-.03671	-.00964	-.28059	-.58660	-.21185
4.749	17.149	.85351	.25292	3.37463	-.00043	-.28793	-.02131	-.00249	-.29549	-.59313	-.24772
4.795	19.432	.96219	.33314	2.87102	.00053	-.31911	-.00726	.01046	-.30968	-.59737	-.32184
4.780	21.466	1.00612	.41123	2.44682	.00084	-.35473	.00690	.02640	-.33974	-.48243	-.47354
4.732	23.638	1.11271	.50135	2.21941	.00193	-.36307	.01636	.03471	-.34932	-.49577	-.51094
4.797	25.791	1.19445	.58316	2.04825	.00239	-.41753	.02679	.03964	-.37509	-.50480	-.49754
4.765	27.919	1.20747	.64297	1.87795	.00190	-.46427	.03110	.03956	-.43050	-.60496	-.46236
	GRADIENT	.04394	.00040	.57523	.00002	.00024	.00015	.00062	.00062	-.00336	-.00480

DATE 15 NOV 75

TABULATED SOURCE DATA - QAI7

PAGE 79

QAI7,LTPT138,OR82A,(B10C5DTP4 K3) (M87E18) (VSR3)

(RP0032) (16 OCT 75)

REFERENCE DATA

SR07 = 87.1960 SQ.IN. XMRP = 13.1469 INCHES
 LR07 = 19.9245 INCHES YMRP = .0000 INCHES
 BR07 = 14.0302 INCHES ZMRP = 6.0000 INCHES
 SCALE = .0190 SCALE

RUN NO. 124/ 0 RN/L = 4.75 GRADIENT INTERVAL = -5.00/ 5.00

PARAMETRIC DATA

BETA = .000 MACH = .252
 ELEVIR = -5.080 AIRLON = .000
 RUDDER = .000 BOFLAP = -14.250
 SPDRK = 24.920

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB	CHR	CHET
4.767	-2.371	.00017	-1.1866	.06586	.06156	.00024	-.00026	-.00356	.04156	.01069	-.11607
4.768	-1.472	.00046	-1.13679	.06760	.06136	.00003	-.00037	-.00351	.04211	.01150	-.11553
4.769	-.418	.00072	-.09181	.06860	.06109	-.00035	-.00033	-.00350	.04146	.01096	-.11476
4.769	.746	.00110	-.03925	.06821	.06135	-.00064	-.00033	-.00342	.04124	.01175	-.11376
4.772	1.812	.00117	.00666	.06893	.06133	-.00090	-.00034	-.00342	.04073	.01015	-.11368
4.754	3.913	.00196	.10297	.06158	.06237	-.00193	-.00037	-.00330	.04003	.01080	-.11198
4.764	6.065	.00235	.20252	.05261	.06229	-.00250	-.00046	-.00297	.03963	.01405	-.10516
4.733	8.220	.00332	.30107	.03929	.06494	-.00300	-.00057	-.00326	.03857	.01251	-.09502
4.758	10.404	.00396	.40645	.02339	.06660	-.00424	-.00095	-.00348	.04016	.01105	-.08200
4.757	12.625	.00502	.51900	.01097	.06707	-.00503	-.00092	-.00231	.04137	.01332	-.06684
4.750	14.785	.00571	.64223	-.00245	.06233	-.00595	-.00096	-.00161	.04319	.01409	-.04641
4.739	16.952	.00673	.77	.1297	.05530	-.00574	-.00190	-.00116	.04536	.01613	-.02287
4.733	19.219	.00793	.905	.1389	.04962	-.00803	-.00155	-.00130	.05032	.01663	.00067
4.732	21.352	.00743	.9907	.00351	.04921	-.01136	-.00157	-.00146	.05524	.01609	.04614
4.744	23.566	.01095	1.11304	.00625	.04078	-.01667	-.00073	-.00059	.05915	.01616	.06471
4.735	25.697	.01264	1.21874	-.00182	.04614	-.01667	-.00075	.00211	.06685	.01961	.07593
4.753	27.752	.01230	1.27512	-.00745	.06342	-.01696	-.00074	.00299	.07177	.01697	.07609
GRADIENT		.00027	.04496	-.00066	.00012	-.00033	-.00001	.00004	-.00029	-.00008	.00062

RUN NO. 125/ 0 RN/L = 9.95 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB	CHR	CHET
10.185	-2.837	.00195	-.19996	.06413	.06172	-.00019	-.00055	-.00349	.04313	.00625	-.11671
10.166	-1.633	.00261	-.14394	.06643	.06153	-.00037	-.00056	-.00346	.04193	.00547	-.11601
10.129	-.519	.00361	-.08995	.06741	.06119	-.00113	-.00059	-.00341	.04239	.00572	-.11545
10.122	.697	.00419	-.04127	.06725	.06136	-.00146	-.00060	-.00339	.04025	.00562	-.11455
10.135	1.937	.00494	.01480	.06554	.06160	-.00186	-.00062	-.00332	.04284	.00623	-.11379
10.166	4.106	.00611	.11115	.03978	.06200	-.00253	-.00064	-.00326	.04190	.00679	-.11109
10.116	6.349	.00726	.21340	.04982	.06251	-.00315	-.00071	-.00313	.03942	.00641	-.10516
10.142	8.630	.00823	.31840	.03630	.06473	-.00343	-.00087	-.00337	.04250	.00608	-.09597
10.135	10.964	.01056	.43093	.02218	.06473	-.00473	-.00093	-.00306	.04127	.00677	-.08110
10.063	13.300	.01295	.55495	.00799	.06261	-.00536	-.00093	-.00214	.04247	.00704	-.06264
10.093	15.720	.01555	.71222	.00754	.04713	-.00640	-.00197	-.00114	.04703	.00689	-.03089
10.144	17.971	.01556	.82423	.01289	.04447	-.00645	-.00180	-.00117	.03246	.00670	-.00590
10.095	20.263	.01748	.94342	.01759	.03706	-.00640	-.00153	-.00149	.03619	.01091	.04010
10.006	22.607	.01734	1.10652	.01053	.02722	-.00723	-.00225	.00264	.03672	.01227	.03132
9.973	25.141	.01794	1.27119	.00153	.02260	-.00760	-.00236	.00179	.03273	.01269	.06325
9.935	27.293	.01166	1.35342	-.00107	.04026	-.00701	-.00097	-.00055	.07157	.01004	.06010
GRADIENT		.00060	.04460	-.00064	.00005	-.00034	-.00001	.00003	-.00011	-.00000	.00076

DATE 15 NOV 73

TABULATED SOURCE DATA - Q017

PAGE 80

Q017, LPT1138, CRIB2A, (81DC507F4 M3) (M87E18) (V8R5)

(ZPPO32) (16 OCT 73)

REFERENCE DATA

SRZF = 87.1560 84.1N. XRRP = 13.1408 INCHES
 LRZF = 19.9245 INCHES YRRP = .0000 INCHES
 BRZF = 14.0502 INCHES ZRRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .252
 ELEVTR = -5.080 AIRLON = .000
 RUDDER = .000 BOFLAP = -14.250
 SPDRNK / 24.920

RUN NO. 124/ 0 RN/L = 4.73 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CMEO	CPC	CPVT	CPW
4.767	-2.571	-1.0553	.07436	-2.49306	-0.00006	-2.5667	-0.07508	-0.04099	-2.5783	-5.5679	.01374
4.762	-1.472	-1.3700	.07134	-1.92036	.00090	-2.5999	-0.07951	-0.04001	-2.5106	-5.5916	.01851
4.767	-4.18	-0.9131	.08927	-1.31810	-0.00023	-2.5610	-0.07553	-0.03923	-2.8025	-5.7482	.02481
4.768	.746	-0.4013	.06777	-.9222	.00026	-2.5461	-0.07924	-0.03933	-2.4992	-5.58750	.02469
4.772	1.612	.00854	.06717	.0% 732	-0.00031	-2.5145	-0.07519	-0.03849	-2.5699	-5.5959	.02663
4.754	3.913	.09633	.06647	1.43907	-0.00037	-2.4711	-0.07483	-0.03715	-2.5373	-5.7203	.02196
4.764	6.065	.19562	.07372	2.65643	-0.00025	-2.4465	-0.07115	-0.03400	-2.4907	-6.0429	.00927
4.733	6.220	.29236	.06193	3.56854	-0.00060	-2.3812	-0.06547	-0.02955	-2.5231	-5.6297	-.00492
4.756	10.404	.39518	.09637	4.01727	-0.00049	-2.4602	-0.05929	-0.02278	-2.5600	-5.7819	-.03110
4.757	12.825	.50405	.12415	4.06019	.00033	-2.5541	-0.05046	-0.01637	-2.4933	-5.4342	-.09019
4.750	14.785	.62159	.16152	3.84930	-0.00008	-2.6665	-0.04036	-0.00803	-2.4933	-5.4049	-.12916
4.739	16.952	.74309	.21294	3.48962	.00047	-2.6001	-0.02599	.00312	-2.7137	-5.6910	-.17973
4.733	19.219	.85978	.26502	3.01853	.00165	-3.1068	-0.01256	.01345	-2.6131	-5.5955	-.24616
4.732	21.352	.9C149	.36400	2.53155	.00171	-3.4103	.00618	.03797	-3.1063	-4.9772	-.34742
4.744	23.566	1.01771	.45074	2.25787	.00233	-.36515	.01405	.09066	-.32373	-.51503	-.41127
4.735	25.667	1.09909	.52662	2.06705	.00367	-.41271	.02663	.04930	-.34748	-.50412	-.42976
4.753	27.752	1.13191	.58716	1.92777	.00404	-.44307	.02543	.04666	-.37113	-.54607	-.50969
GRADIENT		.04379	-.00092	.61111	-0.00008	.00176	.00008	.00056	.00032	.00143	.00153

RUN NO. 125/ 0 RN/L = 9.93 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CMEO	CPC	CPVT	CPW
10.185	-2.637	-1.1954	.07395	-2.63772	-0.00006	-2.6626	-0.07641	-0.04030	-2.6727	-5.6697	.00610
10.166	-1.635	-1.1436	.07056	-2.04061	-0.00070	-2.5066	-0.07632	-0.03948	-2.67159	-5.6175	.01594
10.129	-.519	-0.9533	.06827	-1.39636	-0.00022	-2.6166	-0.07653	-0.03692	-.26566	-.56144	.02177
10.122	.667	-0.4207	.06675	-.63031	-0.00098	-2.4847	-0.07631	-0.03624	-.26594	-.59777	.02415
10.135	1.957	.01255	.06801	.19014	-0.00006	-2.6449	-0.07594	-0.03763	-.26559	-.61682	.02468
10.166	4.106	.10656	.06759	1.57686	.00029	-2.5669	-0.07493	-0.03629	-.26591	-.59132	.01702
10.116	6.349	.20658	.07311	2.62546	-0.00134	-2.4337	-0.07145	-0.03371	-.26713	-.61164	.00398
10.142	8.650	.30932	.06378	3.69217	.00045	-2.6236	-0.06931	-0.02966	-.26431	-.55106	-.01400
10.135	10.964	.41664	.10373	4.03791	.00016	-2.5479	-0.05793	-0.02316	-.26500	-.62707	-.09102
10.063	13.300	.53623	.13544	3.97406	-0.00036	-2.6220	-0.04785	-0.01479	-.26656	-.59329	-.09610
10.093	15.720	.69354	.20023	3.41377	.00112	-2.6033	-0.03095	.00006	-.27040	-.59644	-.17232
10.144	17.971	.78005	.26656	2.92640	.00172	-3.2568	-0.01969	.01979	-.27324	-.57256	-.25593
10.055	20.283	.87694	.34323	2.56079	.00160	-.34689	.00749	.03261	-.31641	-.52396	-.35376
10.006	22.687	1.01669	.43726	2.32969	.00140	-.36252	.00639	.04493	-.33761	-.52793	-.41977
9.973	25.141	1.15055	.54053	2.12656	.00251	-.38727	-.00172	.06497	-.34253	-.53747	-.46704
9.935	27.293	1.20323	.61965	1.94180	.00325	-.44162	-.01960	.07970	-.36596	-.56641	-.48136
GRADIENT		.04364	-.00092	.61531	-0.00007	.00066	.00023	.00056	.00196	-.00107	.00132

DATE 15 NOV 73

TABULATED SOURCE DATA - 0A17

PAGE 81

0A17,L1PT138,OR82A,(B10C9D7F4 M3) (M07E10) (V5R5)

(RPP033) (16 OCT 73)

REFERENCE DATA

SKEP = 87.1500 IN. XMRP = 13.1469 INCHES
 LREF = 19.9245 INCHES YMRP = .0000 INCHES
 SKEP = 14.0502 INCHES ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .256
 ELEVTR = -9.600 AIRRON = 3.700
 RUDDER = .000 BDFLAP = -14.250
 SPOBRK = 24.920

RUN NO. 126/ 0 RV/L = 4.72 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB	CVR	CHET
4.729	-2.735	.00499	-.28797	.67037	.09396	-.01360	.00420	.00981	.03774	.00597	-.20981
4.809	-1.491	.00567	-.20856	.07300	.09323	-.01532	.00440	.00997	.03781	.00578	-.20720
4.890	-.531	.00616	-.16426	.07390	.09289	-.01618	.00452	.01009	.03699	.00702	-.20564
4.866	.535	.00691	-.11807	.07380	.09279	-.01740	.00465	.01021	.03758	.00596	-.20420
4.861	1.710	.00749	-.06316	.07285	.09324	-.01949	.00482	.01036	.03696	.00747	-.20212
4.882	3.789	.00859	.03031	.06784	.09376	-.02020	.00497	.01031	.03682	.00547	-.19928
4.890	5.958	.00990	.12991	.05975	.09346	-.02203	.00505	.01101	.03767	.00756	-.19300
4.731	8.135	.01117	.22916	.04648	.09609	-.02390	.00525	.01171	.03629	.00790	-.18507
4.860	10.315	.01250	.33121	.03514	.09513	-.02651	.00552	.01244	.03908	.00939	-.17527
4.898	12.468	.01405	.43508	.02021	.10243	-.02890	.00572	.01422	.03667	.00896	-.16842
4.860	14.674	.01543	.55484	.00564	.10051	-.03153	.00600	.01548	.04168	.01078	-.15226
4.807	16.892	.01677	.68210	-.00657	.09463	-.03261	.00565	.01615	.04393	.01367	-.13397
4.868	19.058	.01782	.80934	-.01305	.09093	-.03264	.00462	.01762	.04753	.01289	-.11645
4.874	21.253	.01794	.90806	.00320	.08724	-.03661	.00651	.01687	.05305	.01361	-.07113
4.879	23.411	.02041	1.02190	.00768	.07643	-.03608	.00414	.01474	.05748	.01477	-.04594
4.877	25.527	.02066	1.12678	-.00040	.06402	-.03275	.00186	.01734	.06110	.01674	-.03466
4.723	27.739	.01685	1.19625	-.00672	.09690	-.03157	.00269	.01631	.06614	.01642	-.02301
GRADIENT		.00059	.04544	-.00041	-.00701	-.00100	.00012	.00011	-.00015	.00004	.00159

RUN NO. 127/ 0 RV/L = 9.91 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB	CVR	CHET
10.205	-2.936	.00639	-.27744	.06637	.09632	-.01102	.00399	.01023	.03907	.00789	-.20910
10.250	-1.721	.00733	-.22203	.07105	.09572	-.01180	.00413	.01030	.04026	.00783	-.20694
10.172	-.660	.00842	-.17420	.07224	.09552	-.01270	.00425	.01050	.03972	.00805	-.20559
10.164	.530	.00960	-.12121	.07240	.09548	-.01366	.00439	.01065	.04058	.00785	-.20405
10.178	1.701	.01078	-.06830	.07129	.09556	-.01459	.00432	.01079	.04025	.00829	-.20244
10.165	3.975	.01292	.03328	.06593	.09600	-.01619	.00468	.01105	.03909	.00915	-.19870
10.142	6.272	.01538	.13655	.05663	.09667	-.01803	.00465	.01149	.03600	.00973	-.19258
10.155	8.556	.01759	.23963	.04475	.09964	-.01959	.00496	.01218	.03956	.01010	-.18423
10.126	10.807	.02087	.34340	.07355	.10310	-.02219	.00523	.01351	.03665	.01111	-.17605
10.151	13.173	.02496	.46234	.01597	.10305	-.02521	.00551	.01543	.04244	.01202	-.16205
10.142	15.548	.02819	.61204	.01117	.09042	-.02417	.00376	.01670	.04393	.01472	-.14435
10.131	17.828	.02920	.73236	.01537	.06618	-.02400	.00356	.01551	.04595	.01968	-.11334
10.113	20.179	.03014	.85387	.01980	.07795	-.02460	.00308	.01740	.05115	.01705	-.07099
10.030	22.620	.03074	1.01394	.01371	.06908	-.02416	.00233	.01981	.05701	.01943	-.06198
10.000	24.997	.03080	1.17318	.00394	.06356	-.02258	.00122	.02068	.06349	.02154	-.03322
9.915	27.151	.02214	1.27653	-.00072	.07319	-.01997	.00217	.00981	.06632	.01625	-.03774
GRADIENT		.00096	.04493	-.00037	-.00003	-.00076	.00010	.00012	-.00013	.00017	.00146

0A17.L1PT138,082A, (810C30774 M3) (H07E18) (VSR5)

(ZPF033) (16 OCT 73)

REFERENCE DATA

SREF = 87.1560 SQ.IN. XMRP = 13.1469 INCHES
 LREF = 19.9245 INCHES YMRP = .0000 INCHES
 SREF = 14.0502 INCHES ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .256
 ELEVTR = -9.600 AIRLON = 3.700
 RUDDER = .000 BOFLAP = -14.250
 SPDRK = 24.920

RUN NO. 126/ 0 RV/L = 4.72 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	CL	CD	L/D	CAC	CP8	CHEI	CHEO	CPC	CPVT	CPW
4.729	-2.735	-2.6368	.08314	-3.17154	-.00043	-.23298	-.12029	-.08952	-.24062	-.58227	.00880
4.699	-1.491	-2.2059	.07840	-2.63513	-.00038	-.23344	-.11944	-.08775	-.24014	-.60253	.01722
4.690	-.531	-1.6359	.07542	-2.18920	-.00063	-.22836	-.11905	-.08659	-.23950	-.57930	.02200
4.686	.535	-1.1675	.07271	-1.60579	-.00041	-.23198	-.11873	-.08548	-.23925	-.58631	.02777
4.681	1.710	-.08531	.07093	-.92089	-.00029	-.22820	-.11807	-.08406	-.23340	-.58330	.02864
4.682	3.789	.02376	.06970	.36955	-.00042	-.22730	-.11747	-.08181	-.23470	-.58888	.02432
4.690	5.958	.12301	.07291	1.68706	.00003	-.23253	-.11487	-.07813	-.23206	-.59330	.01050
4.731	8.135	.21999	.08042	2.73544	-.00046	-.22404	-.11259	-.07248	-.23258	-.59371	-.00122
4.660	10.315	.31957	.09388	3.40397	-.00027	-.24127	-.11125	-.06402	-.23478	-.58937	-.07113
4.698	12.468	.42045	.11367	3.69892	.00022	-.23973	-.10941	-.05701	-.23691	-.58682	-.02687
4.660	14.674	.53532	.14601	3.66830	.00002	-.27122	-.09744	-.03653	-.25616	-.53641	-.11268
4.687	16.892	.63471	.19145	3.41974	.00085	-.27943	-.08860	-.02785	-.27136	-.51953	-.22077
4.668	19.058	.76924	.25194	3.05328	.00124	-.32752	-.06759	-.00333	-.30286	-.48698	-.32809
4.674	21.253	.84514	.33214	2.54454	.00139	-.34887	-.05005	.00110	-.32410	-.49221	-.40406
4.679	23.411	.93472	.41308	2.26280	.00175	-.37117	-.03780	.00315	-.32703	-.48599	-.42159
4.677	25.527	1.01696	.48521	2.09590	.00282	-.42063	-.02595	.00695	-.33756	-.51580	-.59416
4.723	27.739	1.06190	.55085	1.92774	.00467	.00092	.00042	.00117	.00113	.00021	.00246
	GRADIENT	.04418	-.00205	.54412	.00001						

RUN NO. 127/ 0 RV/L = 9.91 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	CL	CD	L/D	CAC	CP8	CHEI	CHEO	CPC	CPVT	CPW
10.205	-2.936	-.27337	.08249	-3.31638	-.00073	-.24122	-.12225	-.08685	-.25422	-.60463	.01014
10.230	-1.721	-.21979	.07768	-2.82936	-.00002	-.24855	-.12187	-.08507	-.24893	-.61029	.01548
10.172	-.660	-.17336	.07424	-2.35516	.00002	-.24518	-.12168	-.08591	-.24476	-.61700	.02031
10.184	.590	-.12188	.07128	-1.70985	.00021	-.25053	-.12157	-.08248	-.24684	-.59756	.02351
10.178	1.701	-.07039	.06923	-1.01666	.00021	-.24849	-.12139	-.08105	-.24478	-.63192	.02438
10.165	3.975	.02863	.06808	.42049	-.00019	-.23514	-.12064	-.07806	-.23846	-.60086	.01952
10.142	6.272	.12955	.07121	1.81912	-.00072	-.23457	-.11854	-.07404	-.24731	-.60310	.00548
10.155	8.556	.23037	.07951	2.89730	-.00010	-.24422	-.11631	-.06792	-.24595	-.60357	-.01967
10.126	10.607	.33158	.09440	3.51255	-.00034	-.23987	-.11585	-.06020	-.24593	-.60915	-.04229
10.151	13.173	.44654	.12091	3.69307	.00017	-.23987	-.11314	-.04892	-.25893	-.61340	-.09569
10.142	15.548	.58665	.17481	3.35589	.00064	-.26198	-.10517	-.03917	-.25979	-.61921	-.16820
10.131	17.828	.69251	.23886	2.89919	.00040	-.28368	-.09138	-.02196	-.27648	-.58047	-.24725
10.113	20.179	.79463	.31313	2.53768	.00042	-.31578	-.06804	-.00295	-.30833	-.51800	-.32577
10.030	22.620	.93066	.40264	2.31141	.00221	-.35196	-.06463	.00265	-.31264	-.52572	-.36478
10.000	24.997	1.06162	.49933	2.12610	.00381	-.39197	-.06998	.01676	-.32409	-.51668	-.42563
9.915	27.151	1.13619	.58189	1.93259	.00362	-.40941	-.08356	.04582	-.34505	-.54306	-.47547
	GRADIENT	.04369	-.00209	.54378	.00006	.00382	.00021	.00125	.00195	-.00015	.00146

QAL7, LPT1136, ORB2A, (B1DC507F4 M3) (M07E18) (V383)

(RP0034) (16 OCT 73)

REFERENCE DATA

BRZF = 87.1560 94.1N. 108P = 13.1469 INCHES
 LREF = 19.9245 INCHES 108P = .0000 INCHES
 BRZF = 14.0502 INCHES 208P = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .253
 ELEVTR = .000 AIRLON = 15.000
 RUDDER = .000 BOFLAP = -14.250
 SPDRNK = 24.920

RUN NO. 129/ 0 RV/L = 4.72 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB	CHR	CHT
4.818	-2.364	.02491	-.05566	.09326	-.00313	-.05147	.01074	.08235	.04075	.01640	-.00081
4.785	-1.241	.02536	-.00367	.09432	-.00281	-.05309	.01112	.05254	.04306	.01061	-.19931
4.747	-.232	.02579	.03960	.09433	-.00222	-.05468	.01143	.05349	.04234	.02013	-.19788
4.781	.932	.02715	.09190	.09271	-.00208	-.05636	.01180	.05391	.04117	.02126	-.19407
4.767	1.941	.02782	.13509	.09040	-.00113	-.05834	.01216	.05450	.04226	.02218	-.19645
4.751	4.090	.02914	.22853	.08301	.00096	-.06122	.01266	.05457	.04137	.02295	-.19237
4.745	6.253	.03111	.32522	.07331	.00150	-.06504	.01323	.05548	.04063	.02290	-.18745
4.758	8.414	.03298	.42330	.06092	.00455	-.06846	.01360	.05623	.04222	.02311	-.17853
4.765	10.566	.03591	.53089	.04726	.00469	-.07319	.01422	.05901	.04261	.02427	-.17105
4.754	12.835	.03806	.64374	.03277	.00640	-.07699	.01445	.06149	.04371	.02537	-.15975
4.767	15.082	.03946	.76826	.01891	.00329	-.07863	.01426	.06147	.04619	.02676	-.14222
4.778	17.184	.04012	.89097	.01020	-.00162	-.07623	.01233	.06196	.04701	.02867	-.12507
4.758	19.305	.03932	1.01182	.01176	-.00294	-.07270	.01017	.06192	.05147	.02972	-.10328
4.743	21.408	.03750	1.07422	.03066	.00360	-.06992	.00994	.05093	.05570	.02840	-.08230
4.781	23.637	.04234	1.20759	.03117	-.00807	-.07154	.00704	.05409	.06154	.02951	-.03827
4.725	25.907	.03865	1.30260	.02229	.00356	-.06201	.00343	.05350	.06598	.03066	-.02356
4.722	27.807	.02006	1.29199	.02041	.04534	-.03026	.00045	.03634	.07376	.02375	-.01799
GRADIENT		.00069	.04393	-.00162	.00062	-.00154	.00030	.00035	-.00003	.00099	.00123

RUN NO. 128/ 0 RV/L = 10.02 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB	CHR	CHT
10.322	-2.506	.05638	-.05961	.09218	-.00282	-.05317	.01087	.05177	.04350	.01705	-.00365
10.149	-1.222	.05682	-.00236	.09360	-.00299	-.05326	.01130	.05236	.04340	.01656	-.00227
10.113	-.300	.06000	.03996	.09322	-.00331	-.05734	.01170	.05290	.04565	.01746	-.00208
10.237	.935	.06267	.09404	.09243	-.00293	-.05949	.01209	.05350	.04310	.01709	-.00056
10.207	2.103	.06470	.14805	.09006	-.00290	-.06161	.01250	.05405	.04412	.01775	-.15931
10.250	4.366	.06968	.24634	.06233	-.00235	-.06359	.01312	.05479	.04210	.01875	-.15493
10.156	6.619	.07281	.34806	.07176	-.00178	-.06908	.01364	.05566	.04363	.02026	-.16872
10.212	8.861	.07820	.45232	.05671	.00051	-.07281	.01411	.05698	.04427	.02061	-.18145
10.230	11.259	.08566	.56971	.04401	-.00100	-.07821	.01456	.06077	.04574	.02375	-.17103
10.177	13.521	.08970	.68967	.03036	-.00177	-.08052	.01434	.06194	.04509	.02375	-.15607
10.184	15.936	.08974	.84155	.03366	-.01439	-.07513	.01088	.06150	.05083	.02498	-.13322
10.184	18.194	.06445	.93797	.04066	-.01002	-.06845	.00877	.05412	.05442	.02499	-.10033
10.166	20.589	.09023	1.07527	.04471	-.02145	-.07102	.00779	.05740	.05844	.02660	-.06240
10.069	22.892	.06906	1.22360	.03916	-.02724	-.06903	.00630	.05909	.05960	.02929	-.05978
10.056	25.263	.06879	1.34150	.02887	-.01384	-.05075	.00264	.05011	.06595	.02637	-.04796
10.015	27.317	.03146	1.37402	.02605	.02183	-.02239	.00064	.02475	.07082	.01409	-.03712
GRADIENT		.00214	.04453	-.00145	.00006	-.00160	.00033	.00045	-.00016	.00027	.00123

0417, L1PT1136, 0R02A, (B1DC50774 MS) (M0TE16) (V0M3)

(ZP034) (16 OCT 73)

REFERENCE DATA

REF = 87.1960 SQ. IN. XREF = 13.1489 INCHES
 LREF = 19.9245 INCHES YREF = .0000 INCHES
 BREF = 14.0502 INCHES ZREF = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .253
 ELEVTR = .000 AILRON = 15.000
 RUDDER = .000 BDFLAP = -14.250
 SPDRK = 24.920

RUN NO. 129/ 0 RV/L = 4.72 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CHEO	CPC	CPVT	CPW
4.018	-2.364	-0.03196	.09551	-5.4408	-.00253	-.25141	-.11902	-.08159	-.29638	-.56851	-.03188
4.783	-1.241	-0.00163	.09438	-0.1725	-.00167	-.26594	-.11955	-.07996	-.29563	-.48753	-.03497
4.747	-.232	.04018	.09417	.42672	-.00186	-.26136	-.11961	-.07627	-.29446	-.56559	-.04941
4.781	.932	.09034	.09422	.95885	-.00218	-.25418	-.11946	-.07662	-.29287	-.56500	-.06643
4.767	1.941	.13195	.09492	1.39011	-.00162	-.26090	-.11999	-.07646	-.28979	-.56566	-.08200
4.751	4.050	.22203	.09910	2.24057	-.00171	-.25338	-.11890	-.07347	-.28575	-.61547	-.13611
4.745	6.253	.31530	.10930	2.91133	-.00184	-.25061	-.11744	-.07002	-.28355	-.62162	-.17536
4.758	8.414	.40983	.12220	3.35372	-.00143	-.26083	-.11498	-.06355	-.28599	-.60836	-.22812
4.765	10.586	.51317	.14599	3.56382	-.00134	-.26307	-.11480	-.05646	-.28686	-.52771	-.27770
4.754	12.835	.62036	.17495	3.54803	-.00091	-.26981	-.11346	-.04629	-.28597	-.31215	-.28644
4.767	15.062	.75686	.21816	3.37769	-.00073	-.28516	-.10743	-.03479	-.29819	-.48295	-.32520
4.776	17.184	.84818	.27298	3.10717	-.00113	-.29024	-.09722	-.02785	-.31041	-.48871	-.36457
4.736	19.305	.95104	.34559	2.75190	-.00004	-.31774	-.08726	-.01803	-.31839	-.46880	-.38505
4.743	21.408	.98691	.42065	2.35091	-.00046	-.34389	-.06898	-.00468	-.35211	-.49623	-.56430
4.781	22.637	1.09360	.51265	2.13321	.00077	-.37994	-.04824	.00798	-.36624	-.49906	-.59442
4.725	25.907	1.16195	.58918	1.97216	.00072	-.40737	-.03568	.01212	-.39453	-.50666	-.53459
4.722	27.907	1.13326	.62076	1.82564	.00219	-.45537	-.03213	.01415	-.41641	-.58507	-.41671
GRADIENT		.04232	.00034	.43244	.00009	.00016	.00001	.00122	.00171	-.01001	-.01629

RUN NO. 128/ 0 RV/L = 10.02 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CHEO	CPC	CPVT	CPW
10.322	-2.508	-.05572	.09470	-.58841	-.00169	-.26855	-.12017	-.08348	-.29870	-.59122	-.04092
10.149	-1.222	-.00036	.09363	-.00366	-.00206	-.26796	-.11343	-.08184	-.30456	-.63242	-.05495
10.113	-.300	.04045	.09301	.43491	-.00194	-.28180	-.12213	-.07995	-.31634	-.62743	-.05776
10.237	.935	.08252	.09395	.98479	-.00167	-.27840	-.12091	-.07965	-.30808	-.59442	-.07974
10.207	2.103	.14265	.09536	1.49596	-.00174	-.27235	-.12113	-.07818	-.30325	-.61409	-.05146
10.230	4.366	.23935	.10084	2.37354	-.00190	-.25993	-.11966	-.07506	-.28659	-.58802	-.12002
10.158	6.619	.33747	.11142	3.02666	-.00171	-.26935	-.11784	-.07098	-.29976	-.57829	-.16882
10.212	8.881	.43784	.12784	3.42488	-.00132	-.27328	-.11646	-.06499	-.29684	-.60113	-.25036
10.230	11.239	.55020	.15423	3.56730	-.00110	-.28236	-.11594	-.05509	-.30195	-.52541	-.24854
10.177	13.521	.68237	.19104	3.48712	-.00128	-.27835	-.11216	-.04390	-.30119	-.55723	-.26704
10.184	15.936	.79996	.26346	3.03639	-.00049	-.31382	-.10461	-.03179	-.32252	-.48065	-.32975
10.184	18.194	.87638	.33132	2.64952	-.00042	-.33593	-.08461	-.01572	-.34338	-.52012	-.43614
10.166	20.589	.99087	.41998	2.35930	-.00012	-.36077	-.06410	-.00170	-.36293	-.47554	-.47180
10.089	22.892	1.11199	.51206	2.17160	-.00030	-.36797	-.06514	.00535	-.37338	-.50167	-.45196
10.036	25.265	1.20067	.59863	2.00605	.00089	-.40714	-.07102	.02306	-.39124	-.52118	-.43321
10.015	27.317	1.20684	.65370	1.84923	.00000	-.43721	-.06684	.04982	-.43720	-.58417	-.45983
GRADIENT		.04291	.00091	.43320	.00005	.00111	.00005	.00118	.00202	.01266	-.01166

OM17,LTPT135,OR82A,(810C50774 NS)(M87E18)(VSR5)

(RPP035) (16 OCT 73)

REFERENCE DATA

BREF = 87.1560 IN. XBRP = 13.1469 INCHES
LREF = 19.9245 INCHES YBRP = .0000 INCHES
BREF = 14.0502 INCHES ZBRP = 6.0000 INCHES
SCALE = .0150 SCALE

BETA = .000 MACH = .253
ELEVTR = -19.200 ALLRON = .000
RUDDER = .000 BDFLAP = -14.250
SPDRK = 24.920

PARAMETRIC DATA

RUN NO. 130/ 0 RV/L = 4.79 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB	CHR	CHET
4.805	-2.923	-0.0067	-0.41550	.08112	.15853	.00240	-0.00085	-0.01088	.03684	.00725	-.25315
4.799	-1.793	-0.0072	-.36466	.08410	.15857	.00266	-0.00096	-0.01108	.03686	.00665	-.24947
4.793	-.708	-0.0059	-.31562	.08584	.15800	.00281	-0.00102	-0.01108	.03655	.00661	-.24764
4.795	.359	-0.0062	-.26882	.08647	.15850	.00277	-0.00109	-0.01107	.03651	.00677	-.24518
4.795	1.500	-0.0057	-.21807	.08598	.15885	.00279	-0.00114	-0.01114	.03755	.00712	-.24242
4.799	3.808	-0.0035	-.12770	.08240	.16065	.00305	-0.00144	-0.01135	.03590	.00614	-.24014
4.800	5.748	-0.0040	-.03391	.07577	.16296	.00402	-0.00195	-0.01174	.03663	.00740	-.23382
4.788	7.918	-0.0022	.06497	.06525	.16497	.00439	-0.00243	-0.01196	.03586	.00444	-.22586
4.785	10.059	-0.0005	.16310	.05353	.16883	.00397	-0.00284	-0.01192	.03598	.00372	-.21753
4.808	12.267	.00144	.27108	.04051	.17108	.00422	-0.00341	-0.01066	.03730	.00532	-.20645
4.776	14.440	.00253	.38127	.02729	.17288	.00287	-0.00350	-0.00927	.03682	.00737	-.19372
4.784	16.802	.00414	.50293	.01577	.17021	.00043	-0.00337	-0.00902	.04032	.00676	-.17913
4.764	18.857	.00532	.62650	.00592	.17064	.00083	-0.00453	-0.00704	.04396	.01204	-.16108
4.787	21.003	.00637	.72702	.01413	.16808	-.00363	-0.00126	-0.01337	.04893	.00890	-.11236
4.782	23.157	.00771	.84026	.01805	.15811	-.00711	-0.00208	-0.00837	.05427	.00901	-.09394
4.769	25.331	.00705	.94656	.00767	.16235	-.00599	-0.00223	-0.00605	.05671	.01037	-.07947
GRADIENT		.00005	.04412	.00018	.00030	.00009	-0.00008	-0.00006	-.00008	-.00010	.00199

RUN NO. 131/ 0 RV/L = 10.09 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB	CHR	CHET
10.228	-2.444	-0.0006	-.05401	.01387	.01998	.00031	-0.00014	-0.00143	.03672	.00028	-.03157
10.227	-1.434	-0.0006	-.04776	.01221	.02001	.00033	-0.00016	-0.00144	.03748	.00039	-.03117
10.223	-.403	-0.0011	-.04146	.01058	.02016	.00036	-0.00018	-0.00144	.03835	.00032	-.03071
10.219	.587	-0.0013	-.03552	.00890	.02014	.00042	-0.00019	-0.00144	.03754	.00035	-.03050
10.210	1.849	-0.0011	-.02911	.00631	.02031	.00041	-0.00019	-0.00144	.03970	.00018	-.03028
10.202	3.662	-0.0008	-.01664	.00174	.02057	.00046	-0.00023	-0.00145	.03663	.00037	-.02960
10.193	5.704	.00005	-.00497	-.00325	.02092	.00050	-0.00029	-0.00147	.03638	.00018	-.02907
10.203	7.738	.00011	.00745	-.00863	.02137	.00036	-0.00036	-0.00193	.03618	.00022	-.02807
10.189	9.865	.00034	.02014	-.01453	.02212	.00032	-0.00041	-0.00142	.03779	.00028	-.02699
10.177	11.992	.00066	.03297	-.02023	.02282	.00032	-0.00041	-0.00129	.03758	.00039	-.02540
10.189	13.902	.00102	.04782	-.02526	.02198	.00040	-0.00058	-0.00110	.04016	.00065	-.02336
10.176	16.025	.00132	.06318	-.02933	.02163	-.00001	-0.00046	-0.00099	.04356	.00083	-.02013
10.186	18.102	.00152	.07607	-.03295	.02119	-.00020	-0.00042	-0.00076	.04626	.00089	-.01467
10.183	20.066	.00152	.09228	-.03733	.02019	-.00006	-0.00050	-0.00045	.05149	.00087	-.01293
10.116	22.144	.00155	.11047	-.04286	.01949	-.00001	-0.00056	-0.00032	.05566	.00108	-.01239
10.094	24.253	.00175	.12832	-.04801	.01860	-.00063	-0.00030	-0.00041	.05651	.00064	-.01036
GRADIENT		-0.00000	.00606	-.00196	.00010	.00002	-0.00001	-0.00003	.00012	-.00000	.00031

0A17, LPT1138, 0R62A, (B1DC507F4 MS) (MSTE18) (VSR3)

(ZPPO33) (16 OCT 73)

REFERENCE DATA

SRF = 87.1960 SQ. IN. XRRP = 13.1469 INCHES
 LREF = 19.9245 INCHES YRRP = .0000 INCHES
 BRP = 14.0502 INCHES ZRRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .253
 ELEVR = -19.200 AILRON = .000
 RUDDER = .000 BOFLAP = -14.250
 SPDRK = 24.920

RUN NO. 130/ 0 RV/L = 4.79 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	CL	CD	L/D	CAC	CPB	OEI	CHEO	CPC	CPVT	CPW
4.805	-2.923	-4.1082	.10220	-4.01966	.00063	-.22745	-.15097	-.10218	-.21628	-.57233	-.20577
4.799	-1.793	-.36185	.09547	-3.79035	.00053	-.22754	-.14966	-.09981	-.21804	-.54749	-.18813
4.793	-.706	-.31474	.08973	-3.50770	.00044	-.22964	-.14951	-.09813	-.21764	-.54632	-.16835
4.795	-.3.9	-.26816	.08479	-3.17462	.00042	-.22840	-.14894	-.09623	-.21784	-.57177	-.14750
4.795	1.900	-.22025	.08024	-2.74480	.00068	-.23163	-.14821	-.09421	-.21769	-.56471	-.12227
4.799	3.806	-.13263	.07421	-1.78731	-.00019	-.22161	-.14786	-.09228	-.22514	-.56876	-.07962
4.800	5.748	-.04133	.07199	-.57413	.00030	-.22616	-.14495	-.08967	-.22081	-.55954	-.04875
4.788	7.918	.05536	.07358	.75235	.00000	-.22135	-.14072	-.08514	-.22138	-.57841	-.02519
4.785	10.059	.15125	.08120	1.86268	.00025	-.22210	-.13961	-.07792	-.21757	-.55882	-.02801
4.806	12.267	.25627	.09718	2.63700	.00020	-.23027	-.13710	-.06936	-.22679	-.56728	-.04278
4.776	14.440	.36242	.12151	2.98276	.00019	-.23642	-.13371	-.06701	-.23502	-.57496	-.05965
4.784	16.602	.47746	.15881	3.00650	.00064	-.25013	-.12649	-.05264	-.23677	-.56134	-.12289
4.784	18.857	.59096	.20809	2.83988	.00085	-.27141	-.11869	-.04239	-.25837	-.50468	-.17403
4.787	21.003	.67365	.27377	2.46062	.00151	-.30804	-.09570	-.01668	-.27317	-.52334	-.23024
4.782	23.157	.76546	.34703	2.20374	.00234	-.33504	-.08329	-.01065	-.29333	-.49971	-.28464
4.789	25.331	.85227	.41191	2.06908	.00318	-.35011	-.07085	-.00882	-.29361	-.48387	-.30089
GRADIENT		.04265	-.00429	.34214	-.00010	.00051	.00046	.00154	-.00119	-.00141	.01943

RUN NO. 131/ 0 RV/L = 10.09 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	CL	CD	L/D	CAC	CPB	OEI	CHEO	CPC	CPVT	CPW
10.228	-2.444	-.03337	.01616	-3.30170	.00069	-.23906	-.01878	-.01282	-.22661	-.57119	-.17818
10.227	-1.434	-.04744	.01341	-3.53882	-.00003	-.23140	-.01865	-.01253	-.23192	-.56668	-.16794
10.223	-.403	-.04138	.01067	-3.87766	.00000	-.23673	-.01855	-.01217	-.23675	-.60399	-.15918
10.219	.587	-.03560	.00814	-4.37522	-.00019	-.23174	-.01849	-.01201	-.23504	-.59196	-.14332
10.210	1.649	-.02928	.00547	-5.34931	.00094	-.24508	-.01842	-.01186	-.22830	-.57988	-.11742
10.202	3.682	-.01692	.00063	-26.00663	.00035	-.23849	-.01819	-.01141	-.23218	-.58005	-.07779
10.193	5.704	-.00462	-.00373	1.23889	.00007	-.23691	-.01795	-.01112	-.23568	-.56803	-.04759
10.203	7.738	.00654	-.00755	-1.13147	.00111	-.23573	-.01749	-.01058	-.21596	-.58044	-.02565
10.189	9.865	.02233	-.01787	-2.03438	-.00004	-.23328	-.01738	-.00962	-.23393	-.51937	-.02076
10.177	11.892	.03643	-.01306	-2.80195	-.00011	-.23199	-.01710	-.00829	-.23388	-.59215	-.03654
10.169	13.902	.05249	-.01305	-4.02346	.00009	-.24795	-.01638	-.00698	-.23869	-.56942	-.09783
10.176	16.023	.06862	-.01015	-6.40082	.00103	-.26889	-.01498	-.00515	-.25047	-.56355	-.16269
10.168	18.102	.08255	-.00768	-10.74918	.00076	-.29793	-.01227	-.00260	-.28433	-.58347	-.25523
10.163	20.066	.09949	-.00340	-29.26656	.00175	-.31790	-.01139	-.00154	-.28673	-.55283	-.29782
10.116	22.144	.11647	.00194	61.03637	.00283	-.34488	-.01180	-.00059	-.29460	-.54726	-.43964
10.094	24.233	.13671	.00893	15.30316	.00291	-.36119	-.01327	.00292	-.30940	-.53089	-.42455
GRADIENT		.00594	-.00253	-3.27364	.00032	-.00077	.00039	.00022	-.00031	-.00140	.01668

DATE 15 NOV 73

TABULATED SOURCE DATA - QAI7

PAGE 87

QAI7,LTPT136,OR82A,(B1DC9D7F4 M5) (M07E18) (VSR5)

(RPP036) (16 OCT 73)

REFERENCE DATA

SRF = 97.1560 SQ.IN. XMRP = 13.1469 INCHES
 LREF = 19.9245 INCHES YMRP = .0000 INCHES
 BRP = 14.0502 INCHES ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .253
 ELEVTR = -9.400 AILRON = .000
 RUDDER = .000 BDFLAP = -14.250
 SPDGRK = 24.920

RUN NO. 132/ 0 RN/L = 4.73 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB	CHR	CHET
4.749	-2.697	-0.0132	-2.6859	.06796	.10499	.00137	.00020	-.00363	.03775	-.01285	.53884
4.750	-1.826	-0.0120	-2.3776	.07053	.10477	.00126	.00017	-.00359	.03790	-.01222	.54299
4.751	-.539	-0.0081	-1.8861	.07179	.10407	.00083	.00013	-.00357	.03910	-.01127	.54263
4.723	.592	-0.0041	-1.1809	.07185	.10440	.00036	.00010	-.00353	.03799	-.01002	.54609
4.726	3.770	.00039	.00452	.06631	.10336	-.00032	-.00011	-.00365	.03796	-.00994	.55010
4.728	5.938	.00121	.10238	.09623	.10678	-.00105	-.00030	-.00336	.03662	-.00958	.55303
4.724	8.095	.00197	.19927	.04716	.10904	-.00173	-.00049	-.00276	.03695	-.00854	.56176
4.702	10.336	.00300	.30647	.03405	.11196	-.00295	-.00060	-.00216	.03756	-.00826	.57835
4.701	12.456	.00405	.41188	.01909	.11400	-.00429	-.00065	-.00122	.03846	-.00808	.58861
4.703	14.646	.00502	.53281	.00420	.11150	-.00592	-.00074	-.00067	.04122	-.00642	.60252
4.725	16.842	.00621	.66246	-.00850	.10597	-.00746	-.00083	-.00011	.04464	-.00437	.61526
4.717	19.038	.00757	.79341	-.01378	.09976	-.00813	-.00127	.00160	.04773	-.00374	.63891
4.719	21.247	.00824	.89850	-.00024	.09357	-.01332	.00217	.00311	.05369	-.00305	.68861
4.702	23.294	.01055	1.10365	-.00114	.08906	-.01353	-.00385	.00162	.06174	-.00128	.72874
4.733	40.963	-.00703	-.17779	-.11206	.10803	-.00302	.00004	-.00357	.03790	-.01006	.54477
GRADIENT		.00028	.04518	-.00036	.00007	-.00028	-.00005	-.00000	.00001	.00047	.00185

RUN NO. 133/ 0 RN/L = 9.99 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB	CHR	CHET
10.147	-2.956	.00079	-.29926	.06595	.10483	-.00069	.00012	-.00366	.04015	.00641	-.17488
10.145	-1.771	.00111	-.24432	.06870	.10429	-.00380	.00007	-.00363	.04047	.00643	-.17348
10.176	-.525	.00178	-.18868	.07029	.10399	-.00117	.00006	-.00358	.04029	.00658	-.17219
10.182	.511	.00241	-.14171	.07042	.10395	-.00146	.00002	-.00352	.03910	.00652	-.17041
10.127	1.624	.00296	-.08248	.06957	.10417	-.00174	-.00003	-.00351	.03880	.00665	-.16908
10.128	3.929	.00405	.00991	.06435	.10517	-.00218	-.00015	-.00345	.04048	.00699	-.16554
10.154	6.181	.00575	.10907	.05339	.10683	-.00298	-.00027	-.00303	.03952	.00704	-.16064
10.097	8.491	.00719	.21373	.04327	.10952	-.00355	-.00047	-.00276	.03800	.00677	-.15244
10.115	10.779	.00953	.32128	.02939	.11210	-.00485	-.00054	-.00201	.03972	.00732	-.14264
10.137	13.102	.01191	.43987	.01441	.11166	-.00681	-.00029	-.00092	.04047	.00827	-.12955
10.109	15.566	.01520	.59514	.00776	.09786	-.00838	-.00170	-.00018	.04460	.00813	-.10896
10.091	17.788	.01584	.71819	.01261	.09193	-.00818	-.00096	-.00018	.04753	.01228	-.07223
10.076	20.285	.01696	.84917	.01654	.08331	-.00880	-.00109	.00176	.05323	.01388	-.02763
10.074	22.479	.01732	.99333	.01103	.07438	-.00795	-.00175	.00362	.05501	.01416	-.01697
9.960	24.620	.01839	1.15229	.00125	.06767	-.00800	-.00233	.00468	.06110	.01646	-.00640
9.990	27.244	.01479	1.27987	-.00370	.07330	-.00915	-.00040	-.00375	.06636	.01199	.00566
GRADIENT		.00049	.04485	-.00023	.00005	-.00023	-.00004	.00003	-.00006	.00008	.00136

0A17,LTPT136,ORB2A,(B1DC507F4 M3) (M87E16) (V4R5)

(ZPP036) (16 OCT 73)

REFERENCE DATA

SREF = 87.1960 SQ.IN. XMRP = 13.1469 INCHES
 LREF = 19.9245 INCHES YMRP = .0000 INCHES
 SREF = 14.0502 INCHES ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

BETA = .000 MACH = .253
 ELEVR = -9.400 AIRLON = .000
 RUDDER = .000 BDFLAP = -14.250
 SFDRK = 24.920

PARAMETRIC DATA

RUN NO. 132/ 0 RUN/L = 4.73 GRADIENT INTERVAL = -5.00/ 5.00

RUN/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CHEO	CPC	CPVT	CPW
4.745	-2.697	-2.8508	.08146	-3.49945	-.00074	-.23307	.60979	-.07295	-.24621	-.59277	-.02016
4.750	-1.826	-2.3567	.07724	-3.05097	-.00060	-.23395	.61429	-.07130	-.24464	-.57814	-.00820
4.751	-.539	-1.8793	.07356	-2.55472	.00021	-.24140	.61282	-.06999	-.23768	-.57743	.00039
4.753	.592	-1.7882	.07342	-1.97139	-.00052	-.23456	.61473	-.06864	-.24375	-.56554	.00935
4.726	3.770	.00015	.06646	.00224	-.00004	-.23434	.61376	-.06366	-.23500	-.56805	.02862
4.728	5.938	.06731	.06653	1.39810	-.00058	-.22609	.61420	-.06117	-.23639	-.59418	.02514
4.724	6.095	.15775	.07475	2.55033	-.00059	-.22613	.61745	-.05569	-.23870	-.58102	.01364
4.702	10.336	.29539	.08849	3.33822	.00012	-.23190	.62716	-.04881	-.22970	-.57472	-.01149
4.701	12.456	.39807	.10748	3.70371	-.00038	-.23744	.63050	-.04188	-.24418	-.57709	-.05498
4.703	14.646	.51444	.13878	3.7696	.00005	-.25446	.63473	-.03221	-.25351	-.53280	-.05890
4.725	16.842	.63651	.18380	3.43305	.00154	-.27556	.63836	-.02310	-.24314	-.55861	-.14450
4.717	19.038	.75451	.24578	3.06978	.00174	-.29464	.65223	-.01332	-.25367	-.53611	-.19838
4.719	21.247	.83734	.32583	2.56989	.00167	-.33148	.67653	.01207	-.30172	-.52066	-.27256
4.702	25.294	.99833	.47051	2.12180	.00330	-.38112	.70535	.02131	-.32240	-.53898	-.40010
4.733	40.963	-0.06079	-.20118	.30219	.00001	-.23398	.61159	-.06642	-.23376	-.58363	.01783
GRADIENT		.04397	-.00226	.54648	.00009	-.00004	.00043	.00142	.00158	.00033	.00736

RUN NO. 133/ 0 RUN/L = 9.99 GRADIENT INTERVAL = -5.00/ 5.00

RUN/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CHEO	CPC	CPVT	CPW
10.147	-2.956	-2.9546	.08130	-3.63432	.00002	-.24785	-.10502	-.06985	-.24750	-.59081	-.02280
10.145	-1.771	-.24208	.07621	-3.17633	-.00014	-.24984	-.10307	-.06841	-.25240	-.56795	-.01167
10.176	-.525	-.18822	.07202	-2.61353	.00014	-.24873	-.10325	-.06693	-.24627	-.56330	-.00455
10.162	.511	-.14233	.06916	-2.03809	-.00029	-.24139	-.10304	-.06537	-.24655	-.61408	.01131
10.127	1.624	-.09441	.06692	-1.41089	-.00023	-.23952	-.10309	-.06398	-.24363	-.58831	.01547
10.126	3.923	.00348	.06488	.08448	.00032	-.24989	-.10449	-.06105	-.24418	-.61364	.02196
10.154	6.181	.10247	.06681	1.53366	-.00008	-.24397	-.10307	-.05737	-.24540	-.60437	.01607
10.097	8.491	.20499	.07435	2.75711	-.00051	-.23457	-.10041	-.05203	-.24368	-.58880	.00806
10.115	10.779	.31011	.08896	3.48615	-.00050	-.24523	-.09752	-.04512	-.25411	-.59989	-.01990
10.137	13.102	.42515	.11374	3.73787	-.00009	-.24982	-.09217	-.03738	-.25144	-.59984	-.06642
10.109	15.566	.57123	.16718	3.41685	.00074	-.27551	-.08079	-.02617	-.26206	-.59120	-.14271
10.091	17.768	.68000	.23141	2.93849	.00079	-.29344	-.06357	-.10866	-.27942	-.57313	-.20682
10.076	20.285	.79077	.30991	2.55156	.00151	-.32860	-.03870	.01108	-.30182	-.56620	-.30012
10.074	22.479	.91364	.38999	2.34274	.00113	-.33960	-.03709	.02012	-.31949	-.51089	-.31941
9.960	24.820	1.04533	.48483	2.15608	.00265	-.37719	-.04141	.03502	-.33007	-.58326	-.47821
9.990	27.244	1.13959	.58260	1.95604	.00351	-.40967	-.05962	.06528	-.34722	-.56008	-.45435
GRADIENT		.04365	-.00238	.54197	.00003	-.00036	.00007	.00129	.00090	-.00505	.00679

QM17,LTPT138,ORB2A,(B10C507F4 NS) (M87E18) (V5R5)

(RPP037) (16 OCT 73)

REFERENCE DATA

SREF = 87.1560 94.IN. XGRP = 13.1469 INCHES
 LREF = 19.9245 INCHES YGRP = .0000 INCHES
 BREF = 14.0502 INCHES ZGRP = 6.0000 INCHES
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .252
 ELEVTR = .500 AILRON = 8.900
 RUDDER = .000 BOFLAP = -14.250
 SPOBRK = 24.920

RUN NO. 134/ 0 RN/L = 4.59 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB	CHR	CHT
4.705	-1.365	.01795	-.02459	.06496	.03644	-.03696	.00658	.03778	.04346	.02316	-.16808
4.896	-.341	.01866	.02214	.08492	.00630	-.04030	.00675	.03811	.04237	.02155	-.16683
4.694	.799	.01939	.07309	.08379	.00656	-.04172	.00901	.03895	.04300	.02213	-.16494
4.702	1.854	.02021	.11945	.08159	.00732	-.04310	.00924	.03906	.04271	.02080	-.16413
4.694	3.996	.02160	.21532	.07435	.00794	-.04581	.00966	.03961	.04044	.02136	-.15928
4.691	6.137	.02342	.30950	.06448	.00972	-.04929	.01019	.04087	.04119	.02207	-.15565
4.706	8.239	.02503	.40796	.05221	.01256	-.05207	.01060	.04133	.04206	.02241	-.14597
4.698	10.519	.02660	.51485	.03779	.01434	-.05501	.01092	.04228	.04229	.02354	-.13539
4.714	12.836	.02868	.62480	.02392	.01402	-.05816	.01116	.04395	.04423	.02319	-.12478
4.699	14.891	.02959	.75184	.00967	.01071	-.05972	.01105	.04406	.04710	.02394	-.10633
4.711	17.062	.03072	.88045	-.00168	.00460	-.05959	.01005	.04504	.04829	.02477	-.08545
4.700	19.197	.03102	1.00472	-.00393	.00772	-.05697	.00801	.04592	.05059	.02646	-.06452
4.682	21.377	.02918	1.07753	.01793	.00513	-.05566	.00844	.03660	.05863	.02599	-.01551
4.689	23.576	.03416	1.20767	.02078	-.00614	-.06021	.00672	.03691	.06128	.02855	.00901
4.591	25.595	.03213	1.30110	.01364	.00208	-.05526	.00412	.03993	.06428	.02854	.02041
GRADIENT		.00068	.04456	-.00201	.00033	-.00127	.00020	.00059	-.00048	-.00030	.00161

RUN NO. 135/ 0 RN/L = 9.89 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB	CHR	CHT
10.090	-2.535	.03992	-.07536	.08089	.00807	-.03947	.00843	.03705	.04515	.01341	-.16905
10.144	-1.401	.04204	-.02445	.08179	.00792	-.04080	.00867	.03741	.04127	.01339	-.16765
10.131	-.244	.04375	.02698	.08166	.00780	-.04226	.00890	.03783	.04434	.01361	-.16627
10.084	.876	.04503	.07615	.09074	.00783	-.04371	.00917	.03827	.04351	.01367	-.16511
10.106	2.035	.04702	.12756	.07845	.00818	-.04534	.00946	.03882	.04584	.01406	-.16394
10.089	4.279	.05069	.22644	.07106	.00886	-.04678	.01003	.03963	.04320	.01481	-.16041
10.101	6.324	.05514	.32662	.06052	.01016	-.05209	.01046	.04117	.04113	.01632	-.15447
10.059	8.825	.05831	.43255	.04721	.01246	-.05514	.01086	.04192	.04342	.01707	-.14587
10.054	11.187	.06240	.54878	.03198	.01308	-.05854	.01126	.04342	.04405	.01886	-.13402
10.067	13.532	.06623	.67602	.01859	.00871	-.06055	.01100	.04435	.04598	.01996	-.11905
10.040	15.908	.06748	.83214	.02003	.00679	-.05766	.00868	.04328	.04998	.02044	-.09078
10.073	18.152	.06328	.92844	.02744	-.00328	-.05176	.00682	.03792	.05448	.02078	-.05439
10.010	20.475	.06726	1.05625	.03204	-.01434	-.05377	.00611	.04030	.05621	.02497	-.01744
9.994	22.810	.06790	1.21416	.02608	-.02182	-.05184	.00448	.04339	.06046	.02658	-.00959
9.961	25.129	.05317	1.34263	.01688	-.01470	-.05626	.00185	.03683	.06526	.02431	.00341
9.694	27.052	.02622	1.36810	.01482	.01271	-.01987	.00123	.07566	.07566	.01461	.01172
GRADIENT		.00155	.04426	-.00142	.00012	-.00136	.00024	.00041	.00002	.00021	.00123

OA17, LPT1136, ORB2A, (B10C5D7F4 NS) (M07E18) (VSR5)

(ZPP037) (16 OCT 73)

REFERENCE DATA

SREF = 87.1560 58. IN. XMRP = 13.1469 INCHES
 LREF = 19.9245 INCHES YMRP = .0000 INCHES
 BREF = 14.0502 INCHES ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .252
 ELEVTR = .500 AILRON = 8.900
 RUDDER = .000 BDFLAP = -14.250
 SPDRBK = 24.920

RUN NO. 134/ 0 RN/L = 4.59 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CHEO	CPC	CPVT	CPW
4.705	-1.365	-.02233	.08555	-.26336	-.00126	-.26329	-.09899	-.06910	-.29069	-.58209	-.00663
4.696	-.341	-.02264	.08479	.26708	-.00133	-.26158	-.09941	-.06741	-.28519	-.57252	-.01338
4.694	.799	.07191	.08480	.84795	-.00118	-.26344	-.09908	-.06586	-.28650	-.61879	-.02040
4.702	1.854	.11674	.08541	1.36684	-.00118	-.26369	-.09976	-.06437	-.28460	-.63733	-.03111
4.694	3.996	.20982	.08919	2.35248	-.00134	-.24964	-.09816	-.06112	-.27356	-.60960	-.05522
4.691	6.137	.30083	.09720	3.09487	-.00143	-.25427	-.09686	-.05879	-.27974	-.58365	-.09429
4.706	8.299	.39616	.11054	3.58369	-.00064	-.25963	-.09315	-.05282	-.27100	-.60022	-.13314
4.698	10.519	.49930	.13115	3.80698	-.00090	-.26106	-.09027	-.04512	-.27704	-.59220	-.19330
4.714	12.638	.60443	.16004	3.77673	-.00041	-.27308	-.08805	-.03873	-.28036	-.52862	-.24594
4.699	14.691	.72410	.20256	3.57478	-.00026	-.29075	-.07886	-.02747	-.28614	-.55126	-.27481
4.711	17.062	.84220	.25672	3.28059	-.00013	-.29810	-.06503	-.02042	-.30034	-.54680	-.30988
4.700	19.197	.95015	.32665	2.90876	-.00025	-.31476	-.05294	-.01157	-.31921	-.49862	-.35394
4.682	21.377	.99685	.40849	2.43439	.00095	-.36197	-.02984	.01433	-.34506	-.48324	-.49639
4.689	23.576	1.09655	.50208	2.18799	.00120	-.37834	-.01292	.02193	-.35695	-.49723	-.57248
4.591	25.595	1.16753	.57439	2.03264	.00111	-.39686	-.00287	.02327	-.37712	-.52102	-.57439
GRADIENT		.04314	.00070	.48664	-.00001	.00294	.00014	.00147	.00283	-.00794	-.00906

RUN NO. 135/ 0 RN/L = 9.89 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CHEO	CPC	CPVT	CPW
10.090	-2.535	-.07172	.08395	-.85435	-.00133	-.27872	-.10191	-.06714	-.30236	-.62265	-.00395
10.144	-1.401	-.02244	.08236	-.27246	-.00230	-.25477	-.10216	-.06549	-.29561	-.61016	-.00618
10.131	-.244	.02733	.08175	.33437	-.00090	-.27743	-.10235	-.06392	-.29339	-.60471	-.01700
10.084	.876	.07490	.08189	.91463	-.00118	-.25862	-.10248	-.06263	-.28963	-.62066	-.02514
10.106	2.035	.12470	.08293	1.50362	-.00067	-.28299	-.10267	-.06128	-.29492	-.62434	-.04041
10.089	4.279	.22051	.08775	2.51279	-.00078	-.26669	-.10237	-.05803	-.28056	-.62096	-.06459
10.101	6.524	.31783	.09726	3.26780	-.00197	-.25594	-.10028	-.05419	-.28892	-.61571	-.09581
10.059	8.825	.42019	.11301	3.71800	-.00102	-.26898	-.09704	-.04883	-.28631	-.64028	-.13483
10.054	11.187	.53215	.13784	3.86059	-.00063	-.27191	-.09276	-.04125	-.28320	-.62647	-.18086
10.067	13.532	.65290	.17626	3.70424	-.00069	-.28386	-.08681	-.03224	-.29612	-.59895	-.22132
10.040	15.906	.79478	.24735	3.21315	.00035	-.30858	-.07206	-.01873	-.29612	-.59895	-.28323
10.073	18.152	.87371	.31523	2.77167	-.00003	-.33636	-.05260	-.00179	-.30233	-.61076	-.38770
10.010	20.475	.96019	.40019	2.44930	-.00023	-.34704	-.03331	.01586	-.33681	-.52855	-.58770
9.994	22.810	1.10911	.49475	2.24175	.00046	-.37327	-.03421	.02462	-.35112	-.49041	-.48062
9.961	25.129	1.20836	.58545	2.06403	.00062	-.40298	-.04025	.04367	-.36904	-.51234	-.48048
9.894	27.052	1.22949	.64450	1.90766	.00286	-.46711	-.05723	.06895	-.39195	-.53691	-.49098
GRADIENT		.04265	.00055	.49750	.00015	-.00013	-.00008	.00131	.00262	-.62677	-.50887
										-.00108	-.00925

CA17, LTP:136, CR32A, (810C5D7F4 MS) (NOTE18) (VSR5)

(RPP038) (16 OCT 73)

REFERENCE DATA

SREF = 87.1940 SQ.IN. 1000P = 13.1469 INCHES
 LREF = 19.9845 INCHES 1000P = .001 INCHES
 BREF = 14.0502 INCHES 1000P = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .850
 ELEVTR = -24.500 AILRON = .000
 RUDDER = .000 BOFLAP = -14.250
 SPOBRK = 24.920

RUN NO. 136/ 0 RN/L = 4.75 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB	CHR	CHT
4.721	-2.829	.00180	-4.4119	.09726	.17073	.00001	-.00118	-.05792	.03530	.00642	-.30735
4.730	-1.713	.00186	-.38112	.10222	.17079	.00012	-.00142	-.00643	.03634	.00551	-.30319
4.716	-.733	.00168	-.34863	.10222	.17146	.00077	-.00166	-.00877	.03585	.00704	-.30136
4.739	.361	.00186	-.30183	.10312	.17273	.00092	-.00186	-.00908	.03693	.00566	-.29880
4.760	1.487	.00209	-.25331	.10267	.17303	.00094	-.00202	-.00918	.03669	.00483	-.29646
4.726	3.629	.00198	-.15925	.09905	.17390	.00146	-.00227	-.00949	.03657	.00471	-.29201
4.739	5.785	.00235	-.08203	.09163	.17414	.00175	-.00270	-.00941	.03707	.00430	-.28883
4.731	7.998	.00226	.03723	.08081	.17668	.00285	-.00323	-.01029	.03731	.00378	-.26997
4.733	10.159	.00253	.12735	.06932	.18437	.00274	-.00340	-.01078	.03757	.00368	-.26536
4.715	12.265	.00276	.22263	.05666	.18982	.00319	-.00383	-.01076	.03556	.00357	-.25555
4.714	14.445	.00269	.31743	.04363	.19630	.00328	-.00384	-.01110	.03679	.00320	-.25044
4.703	16.805	.00394	.43326	.03205	.19797	.00383	-.00347	-.01012	.04070	.00616	-.23850
4.730	18.781	.00519	.54491	.02496	.20141	.00136	-.00471	-.00949	.04379	.00731	-.23159
4.726	20.992	.00682	.63860	.02463	.20455	-.00392	-.00292	-.00444	.04650	.00812	-.20221
4.706	23.149	.00830	.74677	.02928	.20111	-.00778	-.00220	-.00642	.05203	.00681	-.18290
4.718	25.393	.00716	.84868	.02063	.20340	-.00697	-.00181	-.00680	.05326	.00134	-.19445
4.733	27.422	.00849	.93796	.01436	.20674	-.00986	-.00124	-.00627	.05984	.00813	-.14015
GRADIENT		.00006	.04350	.03027	.00055	.00023	-.00017	-.00023	.00018	-.00028	.00032

RUN NO. 137/ 0 RN/L = 9.97 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB	CHR	CHT
10.096	-3.218	.00280	-.46463	.09428	.17525	.00119	-.00154	-.00901	.03785	.00521	-.30650
10.119	-2.001	.00248	-.41187	.09769	.17542	.00177	-.00182	-.00947	.03754	.00538	-.30168
10.078	-.955	.00232	-.36598	.09969	.17528	.00197	-.00195	-.00974	.04007	.00481	-.29867
10.099	.253	.00280	-.31357	.10074	.17572	.00217	-.00208	-.00969	.03770	.00551	-.29626
10.095	1.342	.00250	-.26573	.10359	.17600	.00271	-.00213	-.01012	.03622	.00493	-.29384
10.036	3.568	.00242	-.16583	.09646	.17600	.00271	-.00233	-.00996	.03774	.00493	-.28799
10.107	5.880	.00291	-.01954	.08865	.17685	.00285	-.00256	-.00942	.03701	.00520	-.27789
10.065	8.195	.00317	.03331	.07756	.17935	.00380	-.00319	-.01039	.03902	.00423	-.26843
10.045	11.372	.00374	.17364	.06582	.18639	.00390	-.00345	-.01037	.03697	.00489	-.26297
10.061	12.676	.00275	.22546	.05245	.19547	.00498	-.00372	-.01217	.03732	.00469	-.25365
10.063	14.968	.00581	.34860	.04180	.19351	.00401	-.00416	-.01113	.03976	.00625	-.24152
10.020	17.287	.00833	.46882	.04327	.19328	.00131	-.00366	-.00953	.04043	.00789	-.22826
10.042	19.605	.00128	.57538	.04274	.19665	.00003	-.00328	-.00845	.04644	.00793	-.19766
10.047	21.959	.0072	.70724	.03963	.18941	.00004	-.00384	-.00522	.04988	.00685	-.16807
10.022	24.395	.01020	.85851	.03029	.18566	.00035	-.00369	-.00433	.05293	.01200	-.16748
9.966	26.809	.01289	1.02377	.02066	.17541	-.00520	-.00189	-.00197	.05520	.01280	-.15650
GRADIENT		-.00002	.04387	.03032	.00013	.00021	-.00011	-.00014	-.00008	-.00005	.00261

OA17,LTPT136,OR82A,(B10C507F4 M3) (M07E1R) (V5R5)

(ZPP038) (16 OCT 75)

REFERENCE DATA

SREF = 87.560 SQ. IN. X RP = 13.1469 INCHES
 LREF = 19.9245 INCHES YRP = .0000 INCHES
 BRP = 14.0502 INCHES ZRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .290
 ELEVTR = -24.500 AILRON = .000
 RUDDER = .000 BOFLAP = -14.250
 SPOBRK = 24.920

RUN NO. 136/ 0 RN/L = 4.75 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CHEO	CPC	CPVT	CPW
4.721	-2.829	-4.3581	.11893	-3.6643	-.00027	-.21792	-.18644	-.12071	-.22277	-.57398	-.36065
4.750	-1.713	-3.6792	.11187	-3.4679	.00076	-.22432	-.18489	-.11931	-.21073	-.55715	-.35061
4.716	-733	-3.4771	.10667	-3.25610	.00037	-.22129	-.18494	-.11865	-.21465	-.58666	-.33962
4.739	.381	-3.0231	.10111	-2.99181	.00104	-.22799	-.18426	-.11454	-.20947	-.57713	-.29455
4.740	1.487	-.23589	.09606	-2.66379	.00042	-.22651	-.18369	-.11277	-.21910	-.56670	-.29343
4.726	3.629	-1.6520	.08677	-1.86102	.00033	-.22575	-.18295	-.10906	-.21990	-.57688	-.25151
4.739	5.785	-.07095	.08491	-.83561	.00049	-.22885	-.17709	-.10354	-.22019	-.57987	-.26001
4.735	7.996	.02563	.08521	.30073	.00079	-.23035	-.17369	-.09628	-.21624	-.59257	-.22563
4.733	10.159	.11313	.09069	1.24739	.00089	-.23197	-.17696	-.08841	-.21606	-.59327	-.15087
4.715	12.265	.20573	.10270	2.00297	-.00034	-.21963	-.17556	-.07999	-.22577	-.57327	-.16462
4.714	14.445	.29651	.12143	2.44178	-.00013	-.22714	-.17354	-.07690	-.22934	-.56136	-.09820
4.703	16.805	.40603	.15453	2.62747	.00045	-.23126	-.16708	-.07142	-.24321	-.55971	-.16349
4.730	18.781	.50787	.19807	2.55123	.00070	-.27034	-.16161	-.06998	-.25783	-.51697	-.18832
4.726	20.992	.60047	.25677	2.33851	.00162	-.28706	-.15353	-.04868	-.25829	-.51080	-.23705
4.706	23.149	.67514	.32049	2.10655	.00153	-.32120	-.13157	-.03694	-.29399	-.48706	-.29054
4.716	25.395	.75781	.38258	1.98077	.00327	-.32861	-.12073	-.03372	-.27072	-.46926	-.28628
4.733	27.422	.82595	.44472	1.85722	.00476	-.33944	-.11173	-.02936	-.28474	-.49387	-.31035
GRADIENT		.04175	-.00466	.27791	.00005	-.00112	.00714	.00178	-.00026	-.00070	.01974

RUN NO. 137/ 0 RN/L = 9.97 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CHEO	CPC	CPVT	CPW
10.096	-3.210	-.45860	.12021	-3.81493	-.00706	-.22997	-.18474	-.12176	-.23147	-.57380	-.37348
10.119	-2.001	-.40821	.11201	-3.64426	-.00053	-.23175	-.18315	-.11853	-.24120	-.56408	-.32499
10.078	-.955	-.35428	.10577	-3.44395	.00142	-.24737	-.18234	-.11633	-.22207	-.56667	-.29365
10.099	.253	-.31402	.09935	-3.18065	.00059	-.23275	-.18177	-.11448	-.22232	-.58189	-.27740
10.095	1.342	-.26801	.09414	-2.84691	.00015	-.23359	-.18117	-.11267	-.22088	-.59165	-.28514
10.036	3.589	-.17157	.08568	-1.99776	.00117	-.23300	-.17949	-.10850	-.21213	-.56371	-.25411
10.107	5.860	-.07435	.08148	-.91243	.00102	-.22850	-.17507	-.10282	-.21029	-.60094	-.24196
10.065	8.195	.02785	.08237	.33814	.00056	-.24069	-.17237	-.09606	-.23092	-.60116	-.22861
10.045	10.372	.11666	.08026	1.32174	.00014	-.22825	-.17410	-.08888	-.22582	-.56879	-.21364
10.061	12.676	.20646	.10064	2.07121	.00024	-.23412	-.17224	-.08180	-.22990	-.56328	-.10928
10.083	14.988	.32593	.13053	2.49686	.00035	-.24546	-.16757	-.07395	-.23915	-.53812	-.14548
10.020	17.287	.43374	.18092	2.40615	-.00022	-.21958	-.16025	-.06801	-.23537	-.56879	-.18600
10.042	19.605	.52580	.23266	2.25998	.00174	-.21670	-.14697	-.05069	-.25582	-.54029	-.24401
10.047	21.959	.64111	.30121	2.12842	.00214	-.20795	-.13167	-.03621	-.26963	-.50007	-.28601
10.029	24.395	.76036	.38216	2.01316	.00213	-.32676	-.13302	-.03246	-.28880	-.53674	-.41095
9.968	26.809	.90441	.48018	1.88349	.00262	-.34080	-.14681	-.00970	-.29416	-.50037	-.48677
GRADIENT		.04214	-.00504	.26621	.00017	.00047	.00072	.00169	.00344	-.00000	.01572

DATE 15 NOV 75

TABULATED SOURCE DATA - QAL7

PAGE 93

QAL7,LTPT138,ORBSA,(B1DC50774 M3) (M87E10) (VSR5)

(RPP039) (16 OCT 75)

REFERENCE DATA

SREF = 97.1560 SQ. IN. XREF = 13.1469 INCHES
 LREF = 19.9245 INCHES YREF = .0000 INCHES
 BREF = 14.0502 INCHES ZREF = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .256
 ELEVTR = -19.900 AILRON = 4.600
 RUDDER = .000 BOFLAP = -14.250
 SPDBRK = 24.920

RUN NO. 136/ 0 RV/L = 4.64 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB	CMR	CHET
4.646	-2.901	-0.0094	-40315	.08181	.15166	-.00545	.00372	.00060	.03920	.00621	-.30613
4.630	-1.666	-0.0055	-34652	.06474	.15118	-.00590	.00370	.00059	.03644	.00491	-.30207
4.633	-.690	-0.0020	-30183	.06614	.15082	-.00632	.00367	.00059	.03460	.00526	-.29979
4.660	.397	.00024	-.25322	.06675	.15105	-.00693	.00369	.00068	.03547	.00484	-.29785
4.643	1.507	.00041	-.20313	.06646	.15145	-.00705	.00363	.00059	.03628	.00390	-.29525
4.637	3.667	.00117	-.15926	.06276	.15233	-.00763	.00339	.00004	.03482	.00257	-.29078
4.679	5.782	.00206	-.01333	.07343	.15341	-.00836	.00316	.00001	.03371	.00409	-.27911
4.646	7.964	.00263	.06750	.06310	.15553	-.00894	.00290	-.00042	.03473	.00441	-.27102
4.634	10.199	.00417	.16704	.05306	.15917	-.01090	.00299	.00022	.03399	.00642	-.26318
4.664	12.266	.00537	.26652	.04063	.16313	-.01254	.00301	.00125	.03369	.00781	-.25566
4.639	14.467	.00668	.39716	.02760	.16561	-.01544	.00342	.00324	.03649	.00868	-.24936
4.659	16.705	.00847	.52017	.01428	.16373	-.01909	.00425	.00584	.04108	.01167	-.23732
4.645	18.849	.00961	.63971	.00620	.16267	-.01903	.00325	.00822	.04406	.01378	-.22946
4.659	21.047	.01093	.74864	.00644	.16359	-.02412	.00304	.01365	.04669	.01430	-.20147
4.661	23.163	.01190	.83696	.01939	.15826	-.02659	.00358	.00981	.03500	.01169	-.17267
4.644	25.406	.01152	.94968	.01080	.15966	-.02433	.02441	.01092	.03619	.01420	-.15057
4.645	27.471	.01164	1.02266	.00259	.16664	-.02612	.03517	.01046	.03999	.01235	-.13546
GRADIENT		.00032	.04477	.00013	.00016	-.0003~	.00005	-.00007	-.00004	-.00051	.00227

RUN NO. 139/ 0 RV/L = 9.89 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB	CMR	CHET
10.153	-3.229	-0.00327	-.42351	.07900	.15572	-.00422	.00345	.00044	.03707	.00513	-.30492
10.146	-2.022	-0.00284	-.36787	.08226	.15499	-.00435	.00336	.00043	.03667	.00403	-.30025
9.998	-.930	-0.00223	-.32055	.08342	.15496	-.00478	.00343	.00046	.03622	.00363	-.29776
10.142	.256	-.00177	-.26617	.08505	.15456	-.00469	.00332	.00049	.03551	.00444	-.29507
10.132	1.370	-.00103	-.21694	.08475	.15477	-.00534	.00332	.00050	.03547	.00499	-.29247
10.122	3.641	.00044	-.11634	.08081	.15541	-.00597	.00316	.00036	.03733	.00489	-.28620
10.075	5.910	.00221	-.01759	.07304	.15736	-.00597	.00307	.00037	.03432	.00462	-.27848
10.082	8.169	.00361	.08567	.06230	.15926	-.00715	.00289	-.00034	.03526	.00462	-.26745
10.074	10.463	.00667	.18933	.04960	.16394	-.00911	.00279	.00056	.03569	.00634	-.26094
10.036	12.866	.00969	.30416	.03595	.16643	-.01174	.00320	.00234	.03664	.00751	-.25206
10.026	15.156	.01295	.43466	.02587	.16049	-.01326	.00287	.00493	.04149	.01014	-.24065
9.986	17.547	.01572	.56139	.02766	.15680	-.01596	.00332	.00742	.04255	.01305	-.22330
9.914	19.696	.01603	.65921	.02999	.15921	-.01640	.00333	.00802	.04757	.01349	-.19149
9.890	22.146	.01796	.80669	.02670	.14913	-.01669	.00270	.01204	.05262	.01566	-.16646
GRADIENT		.00054	.04467	.00026	-.00004	-.00026	-.00004	-.00020	.00000	.00000	.00262

Q417, LTP1138, CR82A, (B10C50774 NS) (M07E18) (VSR3)

(ZPPD39) (16 OCT 73)

REFERENCE DATA

SREF = 97.1960 SQ. IN. XMRP = 13.1469 INCHES
 LREF = 19.9245 INCHES YMRP = .0000 INCHES
 BREF = 14.0302 INCHES ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .256
 ELEVTR = -19.900 AIRRON = 4.800
 RUDDER = .000 BOFLAP = -14.250
 SPOBRK = 24.920

RUN NO. 139/ 0 RN/L = 4.64 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CHEO	CPC	CPVT	CPM
4.866	-2.901	-.39849	.10211	-3.90239	-.00043	-.21750	-.18289	-.12324	-.22497	-.56558	-.09816
4.830	-1.668	-.34391	.09480	-3.62794	.00020	-.22496	-.18175	-.12031	-.22136	-.56509	-.08407
4.833	-.690	-.30077	.08977	-3.35056	-.00003	-.21359	-.18115	-.11683	-.21419	-.57903	-.06978
4.860	.397	-.25382	.08500	-2.98617	.00027	-.21899	-.18089	-.11696	-.21418	-.59120	-.05128
4.843	1.907	-.20333	.08109	-2.53206	.00028	-.22395	-.18014	-.11512	-.21893	-.57475	-.03236
4.837	3.667	-.11433	.07580	-1.51231	-.00016	-.21559	-.17959	-.11119	-.21652	-.57381	.00633
4.878	5.782	-.02066	.07370	-.28298	.00025	-.22046	-.17576	-.10335	-.21610	-.56455	.01493
4.848	7.984	.07761	.07663	1.01286	-.00043	-.21439	-.17173	-.09959	-.22207	-.58322	.01745
4.854	10.199	.17468	.08536	2.04645	.00017	-.22219	-.17445	-.09073	-.21925	-.57886	.00420
4.864	12.286	.27327	.10109	2.70328	-.00021	-.22278	-.17288	-.08298	-.22645	-.57812	-.02572
4.839	14.467	.37769	.12595	2.99684	.00014	-.23763	-.17082	-.07855	-.23515	-.54701	-.05111
4.859	16.705	.49411	.16320	3.02755	.00076	-.25832	-.16444	-.07267	-.24495	-.53975	-.11861
4.843	18.649	.60340	.21255	2.83889	.00132	-.27202	-.15964	-.06982	-.24650	-.50247	-.16696
4.859	21.047	.69638	.27487	2.53348	.00158	-.30060	-.15054	-.05094	-.27244	-.50377	-.22589
4.861	23.163	.76371	.34782	2.19570	.00226	-.32717	-.13628	-.03339	-.28691	-.48460	-.30062
4.844	25.477	.85337	.41732	2.04487	.00376	-.34688	-.11822	-.03434	-.27994	-.49663	-.32151
4.844	27.471	.90634	.47414	1.91152	.00424	-.37033	-.10549	-.02999	-.29487	-.54648	-.32745
4.845		.04329	-.00402	.36568	.00003	.00023	.00049	.00178	.00079	-.00155	.01614

RUN NO. 139/ 0 RN/L = 9.89 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CHEO	CPC	CPVT	CPM
10.133	-3.229	-.41839	.10272	-4.07298	.00021	-.22888	-.18404	-.12087	-.22521	-.59494	-.09014
10.146	-2.022	-.36474	.09519	-3.83186	-.00018	-.22636	-.18273	-.11752	-.22963	-.55931	-.08227
9.999	-.930	-.31916	.08861	-3.60187	.00003	-.22362	-.18172	-.11604	-.22300	-.56783	-.07032
10.142	.298	-.26655	.08386	-3.17869	-.00009	-.21922	-.18153	-.11394	-.22083	-.56056	-.05077
10.132	1.370	-.21890	.07954	-2.73211	-.00102	-.21897	-.18088	-.11159	-.23719	-.59711	-.03710
10.122	3.641	-.12124	.07326	-1.65491	.00071	-.23169	-.17898	-.10722	-.21910	-.58281	-.00714
10.075	5.910	-.02302	.07084	-.35313	-.00101	-.21312	-.17491	-.10137	-.23109	-.61077	.01084
10.092	8.169	.07594	.07384	1.02844	-.00112	-.21783	-.17233	-.08512	-.23775	-.58319	.01169
10.064	10.483	.17714	.08322	2.12849	.00018	-.22156	-.17369	-.08705	-.23775	-.60556	.00291
10.036	12.866	.28852	.10278	2.60724	-.00087	-.22744	-.17202	-.08004	-.23937	-.57683	-.03142
10.026	15.156	.41299	.13867	2.97814	.00076	-.24996	-.16371	-.07315	-.23650	-.61239	-.09078
9.968	17.547	.52687	.19582	2.69056	.00090	-.28266	-.15816	-.06514	-.24669	-.55137	-.13264
9.914	19.898	.61052	.25043	2.43793	.00181	-.29367	-.14424	-.04725	-.26143	-.56290	-.28265
9.890	22.146	.73729	.32890	2.24186	.00179	-.32809	-.13280	-.03588	-.29431	-.53099	-.30279
		.04321	-.00426	.35252	.00003	-.00001	.00068	.00193	.00044	-.00099	.01253

DATE 15 NOV 75

TABULATED SOURCE DATA - QAL7

PAGE 95

QAL7,LTPT138,CRB2A,(810C90774 MS) (M07E10) (VSR5)

(RPP040) (18 OCT 75)

REFERENCE DATA

REF = 87.1' / 50.1 IN. XREF = 13.1469 INCHES
 LREF = 19.9245 INCHES YREF = .0000 INCHES
 BREF = 14.0502 INCHES ZREF = 6.0000 INCHES
 SCALE = .0150 SCALE

BETA =
 ELEVTR =
 RUDDER =
 SPOORX =

.000 MACH = .248
 .000 ATTURON = .000
 -20.000 BOFLAP = -14.250
 24.920

PARAMETRIC DATA

RUN NO. 140/ 0 RV/L = 4.56 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB	CHR	CHET
4.700	-2.489	.0033	-.06473	.06097	.01711	-.05699	.02553	-.01328	.04597	.22433	-.07033
4.750	-1.263	.00675	-.02857	.06265	.01632	-.05874	.02523	-.01514	.04739	.22078	-.06947
4.775	-.289	.00926	.01843	.06297	.01537	-.05662	.02497	-.01503	.04662	.22072	-.06760
4.751	.778	.00950	.06666	.06229	.01536	-.05679	.02473	-.01488	.04803	.21929	-.06490
4.745	2.005	.00969	.12237	.07981	.01472	-.05684	.02443	-.01472	.04650	.21737	-.06247
4.739	4.032	.01027	.21557	.07297	.01446	-.05661	.02402	-.01436	.04647	.21479	-.05717
4.744	6.203	.01099	.31693	.06276	.01379	-.05673	.02355	-.01404	.04817	.21264	-.04566
4.737	8.379	.01174	.42069	.04985	.01467	-.05734	.02329	-.01401	.04659	.21216	-.03161
4.743	10.558	.01239	.52528	.03547	.01628	-.05733	.02279	-.01326	.04669	.21199	-.01326
4.734	12.701	.01348	.63561	.02136	.01628	-.05846	.02232	-.01229	.04696	.21057	.00326
4.733	14.904	.01429	.76026	.00739	.01203	-.05927	.02227	-.01124	.04794	.21159	.02720
4.746	17.365	.01555	.88665	-.00356	.00680	-.06042	.02193	-.00997	.05015	.21295	.04538
4.741	19.378	.01692	1.02472	-.00296	.00165	-.06262	.02196	-.00665	.05441	.21921	.06693
4.735	21.497	.01678	1.10121	.01732	.00543	-.06654	.02321	-.00981	.06079	.22923	.11231
4.761	23.885	.02062	1.22216	.02243	-.00359	-.07303	.02472	-.00940	.06669	.23836	.13399
4.711	25.820	.02118	1.32339	.01466	.00404	-.07331	.02366	-.00761	.06961	.24661	.14692
4.581	27.855	.02141	1.34372	.00596	.03555	-.08062	.02651	-.00709	.07430	.25910	.13619
GRADIENT		.00030	.04596	-.00126	-.00040	.00004	-.00023	.00014	.00001	-.00136	.00208

RUN NO. 141/ 0 RV/L = 10.12 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB	CHR	CHET
10.199	-2.567	.01572	-.06657	.07926	.01823	-.05450	.02507	-.01502	.04654	.21962	-.06935
10.219	-1.375	.01628	-.03227	.06073	.01734	-.05421	.02475	-.01484	.04771	.21662	-.06781
10.208	-.228	.01655	.01916	.06092	.01708	-.05383	.02444	-.01467	.04915	.21692	-.06593
10.197	.873	.01710	.06655	.07966	.01670	-.05370	.02419	-.01448	.04667	.21990	-.06379
10.156	2.010	.01790	.12033	.07787	.01620	-.05382	.02398	-.01425	.04715	.21438	-.06140
10.212	4.264	.01923	.22239	.07082	.01551	-.05371	.02349	-.01360	.04737	.21221	-.05920
10.174	6.535	.02052	.32869	.05968	.01475	-.05359	.02294	-.01344	.04924	.21018	-.04591
10.173	8.942	.02177	.44232	.04929	.01567	-.05340	.02239	-.01313	.04693	.20915	-.02839
10.143	11.161	.02379	.55225	.03106	.01554	-.05416	.02203	-.01240	.04609	.20666	-.00751
10.164	13.484	.02572	.67799	.01733	.01167	-.05423	.02141	-.01131	.04820	.20617	.01430
10.155	15.936	.02864	.83798	.01991	-.00412	-.05537	.02093	-.00955	.05218	.21072	.04655
10.129	18.066	.02806	.93649	.02678	-.00207	-.05576	.02127	-.01102	.05562	.21628	.07860
10.117	20.440	.02996	1.06060	.03263	-.00650	-.05768	.02137	-.00844	.06037	.22370	.11471
10.110	22.930	.02986	1.23437	.02604	-.01945	-.05668	.02103	-.00704	.06482	.23356	.12742
10.118	25.369	.02879	1.38967	.01670	-.01935	-.05690	.02131	-.01094	.06936	.24092	.13976
GRADIENT		.00031	.04519	-.00126	-.00136	.00011	-.00023	.00016	-.00016	-.00113	.00207

0A17, LPT1136, ORB2A, (B10C3D7F4 M3) (M07E16) (V0R5)

(ZPPO40) (16 OCT 73)

REFERENCE DATA

SREF = 87.1560 SQ. IN. XMRP = 13.1463 INCHES
 LREF = 19.9245 INCHES YMRP = .0000 INCHES
 BREF = 14.0352 INCHES ZMRP = 6.0000 INCHES
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .248
 ELEVR = .000 AILRON = .000
 RUDDER = -20.000 SDPLAP = -14.250
 SFCBRK = 24.920

RUN NO. 140/ 0 RN/L = 4.58 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CHEO	CPC	CPVT	CPW
4.700	-2.489	-.08113	.08458	-.95932	.00015	-.28377	-.04106	-.02926	-.28111	-.46953	.01633
4.750	-1.283	-.02671	.08341	-.32002	-.00041	-.29255	-.04066	-.02882	-.29976	-.47558	.01317
4.773	-.289	.01865	.08287	.22742	-.00041	-.28902	-.03992	-.02769	-.29627	-.48310	.01272
4.751	.778	.06585	.08319	.79185	-.00011	-.29649	-.03931	-.02559	-.29841	-.47216	.00885
4.749	2.005	.11950	.08404	1.42193	-.00090	-.28710	-.03852	-.02395	-.30312	-.48166	.00646
4.739	4.032	.20991	.08795	2.38664	.00034	-.28688	-.03876	-.02041	-.28620	-.46938	-.00034
4.744	6.203	.30629	.09664	3.19228	-.00034	-.28506	-.03839	-.01529	-.29108	-.46606	-.02030
4.737	8.379	.40893	.11082	3.69685	.00022	-.28760	-.02141	-.01020	-.28362	-.48554	-.05060
4.743	10.558	.50988	.13112	3.88877	-.00026	-.28949	-.01173	-.00154	-.29049	-.48416	-.07024
4.734	12.701	.61536	.16059	3.83189	.00061	-.28993	-.00231	.00757	-.27905	-.48767	-.12885
4.733	14.904	.73279	.20268	3.61557	-.00006	-.29593	.00683	.02037	-.29737	-.47144	-.19273
4.746	17.085	.85048	.25767	3.30071	.00054	-.30960	.01757	.02801	-.29990	-.47188	-.22000
4.745	19.378	.96765	.33722	2.86952	.00133	-.33587	.02904	.05987	-.31217	-.46240	-.29476
4.735	21.497	1.01825	.41966	2.42635	.00080	-.37526	.05244	.05987	-.36795	-.49486	-.41313
4.781	23.685	1.11021	.51148	2.17057	.00202	-.41170	.06117	.07282	-.37574	-.52072	-.47619
4.711	25.820	1.16488	.58960	2.00962	.00258	-.42974	.07530	.07181	-.38378	-.54130	-.44543
4.561	27.855	1.18358	.63663	1.85882	-.00316	-.45871	.07226	.06393	-.51500	-.51650	-.39015
GRADIENT	.04456	.00051	.00051	.51533	-.00003	-.00024	.00066	.00142	-.00050	.00011	-.00251

RUN NO. 141/ 0 RN/L = 10.12 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CHEO	CPC	CPVT	CPW
10.199	-2.567	-.08234	.08306	-.99854	-.00117	-.27964	-.04291	-.02645	-.32044	-.47940	.00810
10.219	-1.375	-.03032	.08148	-.37212	-.00079	-.29452	-.04243	-.02558	-.30950	-.46965	.00606
10.208	-.228	.01948	.08084	.24098	.00024	-.30345	-.04172	-.02423	-.29921	-.48547	.00561
10.197	.873	.06733	.08091	.83206	-.00010	-.30048	-.04119	-.02261	-.30227	-.48986	.00112
10.198	2.010	.11752	.08204	1.43253	-.00127	-.29109	-.04062	-.02078	-.31368	-.48320	.00458
10.212	4.264	.21652	.08696	2.48993	.00015	-.29246	-.03849	-.01871	-.28987	-.49480	-.01085
10.174	6.535	.31976	.09670	3.30680	.00027	-.28970	-.03154	-.01227	-.29913	-.48145	-.03226
10.173	8.942	.42991	.11349	3.78807	-.00046	-.28970	-.02297	-.01342	-.29765	-.45410	-.05627
10.143	11.161	.53580	.13737	3.90038	-.00029	-.28454	-.01223	.00473	-.28969	-.50892	-.09783
10.164	13.484	.65526	.17494	3.74555	-.00043	-.29756	-.00084	.01515	-.30514	-.50372	-.15823
10.155	15.938	.80030	.24925	3.21077	.00047	-.32211	.01762	.02893	-.31379	-.49222	-.23523
10.129	18.066	.88191	.31618	2.78926	.00068	-.34458	.03551	.04329	-.33250	-.49772	-.30867
10.117	20.440	.98236	.40115	2.44886	.00048	-.37266	.03255	.06215	-.36405	-.51047	-.40469
10.110	22.930	1.12669	.50490	2.23150	.00124	-.40016	.04781	.07961	-.37803	-.51838	-.41564
10.116	25.369	1.24830	.61092	2.04332	.00114	-.42817	.03665	.10311	-.40794	-.52251	-.48355
GRADIENT	.04360	.00056	.00056	.51414	.00012	-.00109	.00063	.00144	.00315	-.00069	-.00292

DATE 15 NOV 73

TABULATED SOURCE DATA - 0A17

PAGE 97

0A17,LTPT138,OR82A,(810C50774 NO) (M87E18) (VSR5)

(RPP041) (16 OCT 73)

REFERENCE DATA

SREF = 87.1560 96.1N, SREF = 13.1469 INCHES
 LREF = 19.9245 INCHES YREF = .0000 INCHES
 BREF = 14.0502 INCHES ZREF = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .292
 ELEVR = .000 AIRRON = .000
 RUDDER = .000 BOFLAP = -14.250
 SPDRK = 84.920

RUN NO. 142/ 0 RV/L = 4.66 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	ON	CA	CLM	CY	CYN	CBL	CAB	CHR	CHT
4.732	-2.496	.00208	-1.1667	.12036	.05343	-.00201	-.00039	-.00136	.04339	.00721	-.06784
4.717	-1.374	.00235	-.08323	.12225	.05286	-.00224	-.00047	-.00144	.06476	.00587	-.06671
4.719	-.331	.00262	-.01648	.12255	.05255	-.00234	-.00050	-.00150	.06418	.00595	-.06492
4.722	.757	.00286	.03345	.12208	.05220	-.00264	-.00050	-.00151	.06269	.00680	-.06504
4.717	1.857	.00317	.06409	.12058	.05229	-.00325	-.00050	-.00157	.06245	.00647	-.06014
4.727	4.014	.00369	.18273	.11419	.05243	-.00394	-.00049	-.00166	.05929	.00609	-.00384
4.728	8.139	.00443	.27864	.10281	.05464	-.00521	-.00033	-.00183	.05847	.00522	-.04343
4.709	9.301	.00469	.38148	.08999	.05556	-.00560	-.00049	-.00177	.05330	.00587	-.02930
4.722	10.503	.00583	.48358	.07521	.05644	-.00694	-.00042	-.00157	.05565	.00559	-.01137
4.707	12.654	.00664	.59727	.06047	.05734	-.00835	-.00046	-.00074	.05964	.00666	-.00732
4.715	14.877	.00737	.72074	.04625	.05316	-.00891	-.00035	-.00014	.05815	.00756	-.02894
4.714	17.139	.00860	.85246	.03405	.04916	-.01132	-.00020	.00116	.06087	.00725	.04747
4.713	19.199	.00980	.97176	.03332	.04481	-.01579	.00132	.02465	.06461	.00910	.06716
4.717	21.404	.00944	1.08477	.04613	.04516	-.01667	.00313	.00379	.06799	.00776	.11585
4.723	23.570	.01236	1.17788	.05273	.03583	-.01968	.00145	.00032	.07334	.00713	.13369
4.683	25.703	.01261	1.28412	.04401	.03990	-.01814	-.00001	.00192	.07896	.00653	.15123
GRADIENT		.00025	.04566	-.00096	-.00015	-.00030	-.00001	-.00004	-.00082	-.00007	.00218

RUN NO. 143/ 0 RV/L = 10.01 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	ON	CA	CLM	CY	CYN	CBL	CAB	CHR	CHT
10.210	-2.577	.00401	-.12378	.11833	.05319	-.00097	-.00080	-.00152	.06592	.00577	-.06679
10.185	-1.359	.00437	-.06755	.12037	.05460	-.00109	-.00066	-.00158	.06827	.00599	-.06750
10.170	-.304	.00469	-.02046	.12083	.05439	-.00134	-.00090	-.00182	.06510	.00603	-.06564
10.181	.889	.00543	.03338	.12017	.05390	-.00181	-.00093	-.00184	.06458	.00593	-.06348
10.131	2.017	.00569	.06611	.11856	.05368	-.00192	-.00092	-.00186	.06683	.00585	-.06081
10.171	4.317	.00704	.18978	.11103	.05138	-.00267	-.00086	-.00172	.06330	.00552	-.05465
10.178	6.590	.00847	.29414	.10002	.05358	-.00360	-.00084	-.00180	.05884	.00597	-.04288
10.122	8.904	.01035	.40182	.08587	.05772	-.00482	-.00084	-.00182	.05604	.00531	-.02827
10.141	11.136	.01244	.51219	.07148	.05642	-.00626	-.00075	-.00145	.05667	.00537	-.00895
10.145	13.473	.01434	.63715	.05677	.05447	-.00704	-.00096	-.00174	.05908	.00631	.01349
10.118	15.874	.01672	.79460	.05731	.05613	-.00784	-.00136	-.00113	.06201	.00729	.04413
10.131	18.159	.01856	.90252	.06292	.05954	-.00775	-.00143	-.00002	.06614	.00726	.07780
10.124	20.489	.01734	1.02649	.06578	.03146	-.00814	-.00156	.00281	.07056	.00878	.11444
10.097	22.867	.01544	1.19598	.05928	.01700	-.00954	-.00242	.00344	.07351	.00885	.12925
10.011	25.274	.01533	1.35370	.04907	.01275	-.00805	-.00226	.00051	.07816	.00776	.14470
GRADIENT		.00045	.04549	-.00107	-.00013	-.00025	-.00001	-.00003	-.00031	-.00006	.00207

0A17,LTPT138,CRB2A,(B10C5D7F4 MS) (M07E16) (V5R5)

(ZPP041) (16 OCT 73)

REFERENCE DATA

SRF = 87.1540 SQ.IN. XMRP = 13.1469 INCHES
 LREF = 19.9245 INCHES YMRP = .0000 INCHES
 BREF = 14.0502 INCHES ZMRP = 6.0000 INCHES
 SCALE = .0190 SCALE

BETA = .000 MACH = .252
 ELEVT = .000 AILRON = .000
 RUDDER = .000 BOFLAP = -14.250
 SPDRK = 84.920

PARAMETRIC DATA

RUN NO. 142/ 0 RN/L = 4.68 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CHEO	CPC	CPVT	CPW
4.732	-2.498	-1.1131	.12533	-88812	.00080	-.39793	-.04087	-.02697	-.36326	-.63269	.01004
4.717	-1.374	-.06028	.12373	-48718	.00138	-.39982	-.04062	-.02608	-.37522	-.61871	.00929
4.711	-.331	-.01577	.12285	-12858	.00183	-.39822	-.03995	-.02497	-.36364	-.70997	.00726
4.722	.757	.03183	.12251	.25985	.00144	-.38701	-.03930	-.02274	-.36140	-.73389	.00552
4.717	1.857	.06014	.12325	.65021	.00123	-.38552	-.03885	-.02128	-.36358	-.71991	-.00229
4.727	4.014	.17429	.12670	1.37560	.00111	-.36604	-.03686	-.01282	-.35284	-.73553	-.02041
4.726	6.139	.26625	.13204	2.01645	.00046	-.36098	-.03061	-.01282	-.35284	-.73553	-.02041
4.709	8.301	.36450	.14412	2.52979	-.00042	-.34141	-.02175	-.00755	-.34890	-.79067	-.04639
4.729	10.503	.46374	.16247	2.85427	.00037	-.34353	-.01234	.00097	-.33690	-.77866	-.07347
4.707	12.654	.56951	.18984	2.99991	.00208	-.36821	-.00331	.01063	-.33116	-.76096	-.12472
4.715	14.877	.68470	.22975	2.98019	.00079	-.35900	.00590	.02304	-.34492	-.76156	-.17959
4.714	17.139	.80457	.28375	2.83545	.00162	-.37577	.01678	.03070	-.34344	-.85565	-.22473
4.713	19.199	.90675	.35104	2.58307	.00314	-.39886	.02685	.04031	-.34293	-.85572	-.27315
4.717	21.404	.97450	.43153	2.23824	.00324	-.41975	.03551	.06234	-.36210	-.71695	-.35109
4.723	23.570	1.05853	.51934	2.03821	.00344	-.45277	.05718	.07651	-.39164	-.74934	-.46206
4.683	25.705	1.13795	.59663	1.90730	.00337	-.48745	.07307	.07816	-.39184	-.71112	-.45161
GRADIENT		.04376	.00021	.34830	-.00013	.00504	.00061	.00156	.00261	-.01847	-.00282

RUN NO. 143/ 0 RN/L = 10.01 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CHEO	CPC	CPVT	CPW
10.210	-2.577	-1.1834	.12378	-95603	.00157	-.40696	-.04304	-.02375	-.37895	-.68452	-.00020
10.185	-1.359	-.06468	.12194	-55043	.00190	-.40912	-.04255	-.02496	-.37523	-.72632	-.00082
10.170	-.304	-.01982	.12094	-16386	.00110	-.40190	-.04191	-.02373	-.38238	-.70478	-.00057
10.181	.869	.03155	.12066	.26152	.00084	-.39871	-.04126	-.02222	-.38368	-.72449	-.00061
10.131	2.017	.08188	.12152	.67380	.00135	-.41136	-.04042	-.02040	-.38727	-.74754	-.00682
10.171	4.317	.18088	.12500	1.44710	.00152	-.39077	-.03836	-.01629	-.36369	-.73729	-.01873
10.178	6.590	.28072	.13312	2.10881	-.00100	-.36326	-.03112	-.01176	-.38108	-.79546	-.03078
10.122	8.904	.38348	.14700	2.60873	-.00026	-.34594	-.02295	-.00532	-.35031	-.77426	-.06115
10.141	11.136	.48874	.16903	2.89102	-.00010	-.34987	-.01305	.00410	-.35166	-.84687	-.09246
10.145	13.473	.60839	.20365	2.97753	.00086	-.36459	-.00142	.01491	-.34928	-.79355	-.15741
10.118	15.874	.74862	.27248	2.74760	.00034	-.38281	.01611	.02802	-.37671	-.77894	-.21244
10.131	18.159	.83796	.34106	2.45698	.00213	-.40831	.03485	.06295	-.37041	-.79467	-.30484
10.124	20.489	.93853	.42092	2.22970	.00335	-.43557	.03218	.06225	-.37593	-.74665	-.38191
10.097	22.867	1.07895	.51936	2.07745	.00360	-.45378	.04888	.08037	-.38987	-.74289	-.42079
10.011	25.274	1.20317	.62233	1.93334	.00326	-.48250	.03944	.10526	-.42441	-.71201	-.51598
GRADIENT		.04340	.00019	.35014	-.00003	.00191	.00068	.00139	.00130	-.00717	-.00261

OAL17,LTPT139,IRB2A,(B10C50774 NS) (MATE18) (VSR5)

(RPP042) (16 OCT 73)

REFERENCE DATA

SRZF = 87.1960 80.1N. XRRP = 13.1469 INCHES
 LRZF = 19.8245 INCHES YRRP = .0000 INCHES
 BRZF = 14.0502 INCHES ZRRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .250
 ELEVTR = .000 ALLRON = .000
 RUDDER = -10.000 BOFLAP = -14.250
 SPOBRK = 64.920

RUN NO. 145/ 0 RM/L = 4.67 GRADIENT INTERVAL = -5.00/ 5.00

RM/L	ALPHA	BETA	CN	CA	CLW	CY	CYN	CBL	CAB	CHR	CHT
4.693	-2.514	.00356	-.12120	.11907	.03346	-.01452	.00549	-.00416	.06315	.09993	-.06666
4.703	-1.372	.00361	-.06789	.12039	.03269	-.01470	.00543	-.00418	.06084	.09936	-.06659
4.704	-.294	.00417	-.01835	.12079	.03209	-.01496	.00533	-.00414	.06271	.09861	-.06460
4.665	.707	.00436	.02701	.12024	.03162	-.01521	.00528	-.00414	.06164	.09735	-.06243
4.690	1.831	.00464	.06037	.11876	.03112	-.01536	.00520	-.00417	.06143	.09673	-.06208
4.677	3.995	.00493	.17830	.11266	.03160	-.01522	.00487	-.00406	.05964	.09488	-.05337
4.655	6.140	.00526	.27621	.10236	.03400	-.01516	.00456	-.00396	.05861	.09395	-.04356
4.673	8.326	.00569	.37847	.08936	.03595	-.01465	.00396	-.00366	.05685	.09394	-.02822
4.695	10.475	.00604	.48053	.07497	.03806	-.01556	.00364	-.00328	.05502	.09048	-.01117
4.630	12.667	.00782	.59249	.06009	.03786	-.01650	.00340	-.00233	.05581	.08909	.00731
4.649	14.894	.00830	.71626	.04582	.03583	-.01674	.00313	-.00164	.05952	.08953	.02972
4.690	17.034	.00940	.84211	.03358	.04964	-.01640	.00306	-.00032	.06990	.08996	.04712
4.740	19.309	.01107	.97357	.03180	.04496	-.02197	.00401	.00316	.06314	.09044	.06863
4.666	21.373	.01080	1.06037	.04335	.04590	-.02723	.00696	.00292	.06734	.08914	.11469
4.711	23.563	.01262	1.17016	.05133	.03760	-.02725	.00524	-.00156	.07166	.08750	.13509
4.593	25.747	.01226	1.27556	.04206	.04105	-.02676	.00483	-.00043	.07493	.08647	.15141
4.669	27.776	.01263	1.30593	.03399	.06545	-.02963	.00827	-.00201	.07900	.08271	.14693
		.00022	.04603	-.00037	-.00031	-.00012	-.00009	.00001	-.00039	-.00080	.00232

RUN NO. 144/ 0 RM/L = 10.0 GRADIENT INTERVAL = -5.00/ 5.00

RM/L	ALPHA	BETA	CN	CA	CLW	CY	CYN	CBL	CAB	CHR	CHT
10.137	-2.534	.00924	-.11794	.11624	.03350	-.01504	.00326	-.00420	.06297	.10344	-.06658
10.107	-1.354	.00971	-.06456	.11966	.03286	-.01513	.00314	-.00419	.06323	.10344	-.06714
10.129	-.232	.01041	-.01451	.12034	.03226	-.01540	.00307	-.00417	.06311	.10267	-.06565
10.093	.836	.01103	.03455	.11976	.03167	-.01571	.00301	-.00413	.06117	.10193	-.06393
10.224	2.036	.01196	.06935	.11778	.03169	-.01569	.00469	-.00409	.06309	.10019	-.06293
10.095	4.704	.01230	.19156	.11093	.03266	-.01569	.00457	-.00395	.06275	.09798	-.05459
10.111	6.634	.01345	.29636	.11345	.03432	-.01539	.00403	-.00372	.05977	.09609	-.04243
10.231	8.991	.01515	.40350	.08627	.03590	-.01528	.00349	-.00348	.06353	.09479	-.02622
10.114	11.240	.01693	.51656	.07066	.03695	-.01610	.00321	.00285	.05572	.09315	-.00816
10.090	13.495	.01847	.64095	.05699	.03306	-.01649	.00260	.00239	.06024	.09239	.01366
10.116	15.685	.02143	.79641	.05702	.03696	-.01727	.00225	-.00329	.05937	.09224	.04393
10.109	16.196	.02112	.90706	.06305	.03790	-.01743	.00237	-.00351	.06597	.09304	.07925
10.091	20.513	.02155	1.03044	.06571	.02996	-.01817	.00254	.00085	.06929	.09290	.11454
10.091	23.056	.02055	1.21042	.05664	.01475	-.01599	.00160	.00204	.07431	.09314	.13067
10.059	25.341	.02065	1.35666	.04904	.01124	-.01691	.00186	-.00036	.07995	.09154	.14432
10.014	27.425	.01769	1.39529	.04545	.04444	-.01827	.00364	-.00964	.08735	.08772	.12369
		.00049	.04526	-.00106	-.00014	-.00012	-.00010	.00004	-.00006	-.00090	.00204

GRADIENT

QM17,LTPT136,CRB2A,(B10C3D774 MS) (M07E10) (V5R5)

(ZPP042) (16 OCT 75)

REFERENCE DATA

SREF = 87.1560 56.14, XMRP = 13.1469 INCHES
 LREF = 19.9245 INCHES YMRP = .0000 INCHES
 BREF = 14.0502 INCHES ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

BETA = .000 MACH = .250
 ELEVT = .000 ALLRON = .000
 RUDDER = -10.000 BOFLAP = -14.250
 SPDRK = 84.920

PARAMETRIC DATA

RUN NO. 145/ 0 RN/L = 4.67 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CHEO	CPC	CPVT	CPW
4.693	-2.314	-1.1566	.12427	-9.3228	.00060	-.36984	-.04194	-.02672	-.37560	-.67804	.00590
4.703	-1.372	-.06498	.12218	-5.3189	.00043	-.37582	-.04127	-.02533	-.36797	-.67244	.00666
4.704	-.294	-.01773	.12088	-1.4670	.00131	-.36712	-.04078	-.02402	-.36386	-.69280	.01300
4.695	.707	.02552	.12057	.21168	.00049	-.38034	-.04016	-.02227	-.37184	-.66481	.01359
4.690	1.831	.07634	.12129	.63104	.00106	-.37928	-.03963	-.02045	-.36035	-.70559	-.01257
4.677	3.995	.17000	.12501	1.35992	.00021	-.36942	-.03758	-.01578	-.36573	-.65593	-.00794
4.655	6.140	.26367	.13133	2.00765	.00018	-.36181	-.03121	-.01237	-.35855	-.74011	-.02313
4.673	8.326	.36153	.14324	2.52394	.00072	-.35099	-.02178	-.00644	-.35817	-.72309	-.04599
4.695	10.475	.45890	.16109	2.84875	.00024	-.33966	-.01267	.00149	-.33866	-.77144	-.07406
4.830	12.667	.56489	.18855	2.95598	-.00037	-.34456	-.00349	.01079	-.35118	-.82341	-.12745
4.690	14.894	.68042	.22839	2.97924	.00131	-.36744	.00624	.02348	-.34409	-.84337	-.18656
4.649	17.034	.79533	.27879	2.85280	.00120	-.36364	.01564	.03128	-.34223	-.80382	-.23733
4.740	19.309	.90836	.35174	2.58246	.00201	-.38982	.02789	.04074	-.35412	-.77218	-.29196
4.668	21.373	.97129	.42774	2.27075	.00249	-.41698	.05331	.06158	-.37269	-.76684	-.32878
4.711	23.563	1.05208	.51483	2.04353	.00299	-.44362	.05788	.07721	-.39038	-.73857	-.44993
4.593	25.747	1.13066	.59201	1.90988	.00238	-.46258	.07315	.07826	-.42030	-.74527	-.42530
4.669	27.776	1.19961	.63866	1.78437	.00363	-.48773	.07393	.07300	-.42314	-.70060	-.42215
GRADIENT		.04394	.00012	.35405	-.00006	.00238	.00065	.00168	.00137	.00163	-.00277

RUN NO. 144/ 0 RN/L = 10.01 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CHEO	CPC	CPVT	CPW
10.137	-2.534	-1.11259	.12334	-9.1288	.00036	-.38873	-.04285	-.02573	-.38236	-.70092	.00060
10.107	-1.354	-.06171	.12135	-5.0853	.00042	-.39034	-.04211	-.02503	-.38286	-.72177	.00091
10.129	-.252	-.01398	.12040	-1.1609	.00049	-.38958	-.04162	-.02403	-.38092	-.68519	-.00027
10.093	.836	.03280	.12028	.27267	.00004	-.37766	-.04093	-.02200	-.37688	-.70296	-.00211
10.224	2.038	.08511	.12089	.70404	.00016	-.38945	-.04007	-.02086	-.38664	-.71409	-.00612
10.095	4.304	.18272	.12500	1.46179	.00103	-.38759	-.03797	-.01682	-.38909	-.77013	-.01607
10.111	6.634	.28496	.13427	2.12219	.00066	-.36899	-.03079	-.01164	-.35723	-.82475	-.03791
10.231	8.891	.38532	.14760	2.61094	.00009	-.34785	-.02258	-.00564	-.34618	-.75759	-.08255
10.114	11.240	.49480	.17060	2.90043	.00000	-.34398	-.01223	.00407	-.34402	-.79496	-.10018
10.060	13.495	.60986	.20497	2.97529	.00075	-.37191	-.00095	.01461	-.35861	-.81353	-.15427
10.118	15.885	.75039	.27283	2.75043	-.00027	-.36653	.01617	.02776	-.37131	-.71450	-.21122
10.105	18.198	.84200	.34317	2.45358	.00188	-.40725	.03568	.04357	-.37380	-.81041	-.31680
10.091	20.513	.94208	.42262	2.22912	.00222	-.42774	.05260	.06193	-.38825	-.69993	-.40514
10.091	23.058	1.09075	.52804	2.06567	.00282	-.44976	.04880	.06207	-.40855	-.76277	-.40291
10.059	25.341	1.20694	.62583	1.92853	.00396	-.49376	.03998	.10434	-.42323	-.73435	-.46168
10.014	27.425	1.21734	.68299	1.78267	.00441	-.53927	.02193	.10196	-.46081	-.66631	-.45988
GRADIENT		.04320	.00025	.34915	.00006	.00037	.00070	.00134	.00151	-.00852	-.00247

DATE 19 NOV 75

TABULATED SOURCE DATA - 0417

PAGE 101

0417,LTPT138,CRB2A,(B1DC50774G1MS)(M07E18)(VSR5)

(RPP043) (16 OCT 75)

REFERENCE DATA

SREF = 87.1560 50.1N. YMRP = 13.1469 INCHES
LREF = 19.9245 INCHES YMRP = .0000 INCHES
BREF = 14.0502 INCHES ZMRP = 6.0000 INCHES
SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .243
ELEVTR = .000 AIRLON = .000
RUDDER = .000 BDFLAP = -14.250
SPDRK = 24.920

RUN NO. 146/ 0 RV/L = 2.47 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB	CHR	CHET
2.457	-2.457	.00180	-.07762	.10084	.00297	-.00572	.00084	-.00231	.04199	.01035	-.04263
2.471	-1.360	.00212	-.02662	.10218	.00258	-.00700	.00083	-.00223	.04210	.01132	-.04165
2.452	-.265	.00223	.02297	.10222	.00258	-.00722	.00076	-.00225	.04165	.00994	-.06106
2.448	.702	.00242	.08426	.10097	.00365	-.00760	.00079	-.00234	.04233	.00878	-.06000
2.432	1.863	.00284	.11970	.09893	.00296	-.00845	.00084	-.00230	.04234	.00902	-.05757
2.450	3.917	.00309	.21226	.09268	.00218	-.00972	.00087	-.00222	.04238	.00797	-.04981
2.462	6.029	.00367	.31046	.08002	.00344	-.01124	.00091	-.00224	.04261	.00719	-.03695
2.436	8.204	.00399	.41172	.06796	.00555	-.01191	.00077	-.00201	.04169	.00889	-.02093
2.457	10.261	.00427	.51587	.05701	.00500	-.01239	.00059	-.00196	.04434	.00715	-.01674
2.452	12.405	.00448	.62799	.04453	.00499	-.01342	.00078	-.00096	.04466	.00666	.03769
2.460	14.503	.00491	.74025	.03103	.00471	-.01469	.00056	-.00085	.04688	.00617	.06117
2.433	16.643	.00525	.86148	.01825	.00472	-.02462	.00309	.00321	.04985	.00771	.08923
2.459	18.825	.00596	.98444	.02658	-.00411	-.02517	.00451	.00221	.05283	.00746	.11569
2.456	20.993	.00617	1.08407	.02049	-.00383	-.02517	.00329	.00404	.05995	.00754	.14327
2.456	22.994	.00411	1.17868	.02425	.00019	-.01205	.00327	.00496	.06683	.00668	.15085
2.455	25.062	.00470	1.24936	.02838	.00919	-.01923	.00327	.00496	.06683	.00921	.16517
2.466	27.128	.00448	1.27725	.02517	.02877	-.01705	.00236	-.00684	.00006	-.00045	.00192
GRADIENT		.00022	.04541	-.00130	-.00006	-.00059	.00001	.00001			

RUN NO. 147/ 0 RV/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB	CHR	CHET
4.830	-2.509	.00361	-.07386	.09950	.00168	-.00580	.00070	-.00218	.04409	.01409	-.06513
4.723	-1.328	.00446	-.01843	.10153	.00119	-.00725	.00077	-.00220	.04435	.01420	-.06379
4.769	-.206	.00552	.03480	.10168	.00015	-.00866	.00066	-.00217	.04425	.01293	-.06180
4.698	.859	.00599	.06314	.10087	.00020	-.00959	.00091	-.00222	.04405	.01299	-.05913
4.748	1.863	.00668	.12851	.09712	.00048	-.01089	.00106	-.00223	.04406	.01325	-.05715
4.748	4.040	.00824	.22741	.09003	.00017	-.01268	.00109	-.00221	.04388	.01354	-.05032
4.700	6.268	.00839	.33047	.07950	-.00038	-.01450	.00111	-.00234	.04290	.01346	-.03716
4.750	8.389	.01003	.43346	.06771	-.00003	-.01481	.00093	-.00212	.04387	.01275	-.02294
4.703	10.943	.01062	.54139	.05526	.00040	-.01566	.00079	-.00190	.04362	.01276	-.00362
4.749	12.750	.01161	.65262	.04202	.00076	-.01695	.00086	-.00114	.04508	.01344	.01350
4.758	14.820	.01200	.77845	.03089	-.00349	-.01754	.00080	-.00170	.04858	.01469	.03993
4.726	17.119	.01305	.90046	.01748	-.00361	-.01849	.00143	-.00020	.05031	.01495	.05703
4.801	19.301	.01461	1.02399	.00735	-.00366	-.02327	.00213	.00123	.05126	.01544	.08127
4.748	21.506	.01503	1.13553	.02050	-.00836	-.02772	.00394	.00164	.05171	.01494	.11793
4.784	23.667	.01392	1.21297	.02280	.00216	-.02411	.00284	-.00151	.05948	.01534	.13479
4.697	25.756	.01437	1.27516	.02047	.01228	-.02773	.00392	-.00241	.06895	.01609	.19274
4.623	27.833	.01626	1.30273	.02223	.03208	-.03232	.00544	-.00236	.07462	.02014	.14722
GRADIENT		.00071	.04591	-.00152	-.00021	-.00105	.00007	-.00001	-.00006	-.00011	.00226

OM17,LTPT130,OR82A,(B10C5077461M3)(M87E18)(V9R5)

(RPPO43) (16 OCT 73)

REFERENCE DATA

SRP = 87.1545 54. IN. SRP = 13.1489 INCHES
 LRF = 19.9245 INCHES YRP = .0000 INCHES
 BRP = 14.0502 INCHES ZRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .243
 ELEVTR = .000 AIRLON = .000
 RUDDER = .000 BDFLAP = -14.250
 SPDRK = 24.920

RUN NO. 148/ 0 RN/L = 10.05 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	ON	CA	CLM	CY	CYN	CBL	CAB	CHR	CHET
10.256	-2.568	.00561	-.07241	.09774	.00224	-.00475	.00069	-.00221	.04491	.01433	-.06416
10.266	-1.374	.00702	-.01806	.09931	.00207	-.00552	.00072	-.00216	.04538	.01455	-.06221
10.265	-.228	.00787	.03279	.09909	.00207	-.00609	.00076	-.00215	.04550	.01467	-.06006
10.268	-.882	.00914	.08159	.09754	.00198	-.00703	.00086	-.00212	.04497	.01498	-.05792
10.283	2.066	.01050	.13490	.09498	.00186	-.00791	.00090	-.00208	.04612	.01527	-.05509
10.305	4.277	.01273	.23511	.08760	.00147	-.00935	.00099	-.00204	.04536	.01575	-.04827
10.197	6.533	.01448	.33884	.07667	.00093	-.01036	.00085	-.00213	.04536	.01575	-.03475
10.287	8.873	.01655	.45111	.06360	.00185	-.01133	.00078	-.00207	.04381	.01627	-.01837
10.211	11.157	.01814	.56815	.05066	.00248	-.01226	.00061	-.00175	.04508	.01674	.00144
10.245	13.488	.01973	.69394	.03880	-.00283	-.01279	.00041	-.00136	.04765	.01698	.02334
10.222	15.874	.02219	.84539	.03404	-.01381	-.01631	.00045	-.00131	.05194	.01791	.05194
10.184	18.194	.02449	.97249	.03024	-.01578	-.01896	.00201	.00165	.05947	.01960	.07896
10.165	20.585	.02494	1.10511	.03313	-.02337	-.01885	.00169	.00164	.05597	.01952	.11278
10.145	22.802	.01869	1.20703	.02976	-.01678	-.01462	.00143	-.00419	.06344	.01767	.12862
10.055	24.934	.02680	1.27938	.02585	-.00211	-.02444	.00370	-.00252	.06583	.02195	.14763
GRADIENT		.00102	.04478	-.00153	-.00010	-.00068	.00005	.00002	.00002	.00025	.00229

RUN NO. 149/ 0 RN/L = 11.45 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	ON	CA	CLM	CY	CYN	CBL	CAB	CHR	CHET
11.761	-2.612	.00816	-.07253	.09703	.00123	-.00557	.00057	-.00229	.04529	.01618	-.06410
11.761	-1.354	.00917	-.01822	.09881	.00093	-.00614	.00058	-.00226	.04538	.01618	-.06189
11.746	-.232	.01018	.03405	.09870	.00082	-.00708	.00078	-.00226	.04507	.01557	-.05945
11.725	.989	.01123	.08755	.09721	.00069	-.00753	.00069	-.00223	.04741	.01579	-.05754
11.736	2.043	.01271	.13491	.09495	.00066	-.00850	.00078	-.00218	.04647	.01587	-.05491
11.733	4.348	.01454	.23936	.08719	.00016	-.00966	.00085	-.00216	.04329	.01607	-.04755
11.732	6.663	.01649	.34720	.07613	-.00021	-.01057	.00073	-.00223	.04773	.01647	-.01386
11.708	8.996	.01828	.45862	.06305	.00065	-.01148	.00063	-.00216	.04563	.01616	-.01767
11.700	11.279	.02006	.57461	.05024	-.00044	-.01240	.00034	-.00187	.04607	.01642	.00169
11.706	13.675	.02141	.70582	.03832	-.00049	-.01281	.00032	-.00145	.04698	.01677	.02552
11.678	16.073	.02473	.85903	.03442	-.01574	-.01372	.00079	-.00007	.05065	.01760	.05327
11.637	18.389	.02649	.98443	.03011	-.01767	-.01828	.00154	.00135	.05175	.01903	.07952
11.573	20.712	.02840	1.11542	.03227	-.02463	-.01868	.00161	.00067	.05682	.01954	.11343
11.514	23.018	.01929	1.21945	.02829	-.01759	-.01465	.00160	-.00409	.06109	.01809	.12949
11.472	25.200	.02869	1.28672	.02508	-.00312	-.02475	.00384	-.00275	.06862	.02166	.15004
11.453	27.416	.02997	1.32385	.02243	-.01476	-.02505	.00337	-.00194	.07450	.02451	.15672
GRADIENT		.00084	.04474	-.00146	-.00014	-.00060	.00004	.00002	.00009	-.00002	.00233

OA17,LTPT138,ORB2A,(B10C5D7F4G1H3)(M07E18)(V5R5)

(ZPP043) (16 OCT 73)

REFERENCE DATA

SREF = 87.1560 SQ.IN. XMRP = 13.1469 INCHES
 LREF = 19.9245 INCHES YMRP = .0000 INCHES
 BREF = 14.0502 INCHES ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

BETA = .000 MACH = .243
 ELEVTR = .000 AILRON = .000
 RUDDER = .000 BOFLAP = -14.250
 SPD8RK = 24.920

PARAMETRIC DATA

RUN NO. 146/ 0 RN/L = 2.47 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CHEO	CPC	CPVT	CPW
2.437	-2.437	-0.7343	.10388	-7.70687	.00001	-2.29920	-0.03925	-0.02736	-2.29900	-5.9812	.02697
2.471	-1.360	-0.02419	.10278	-2.3334	-0.00019	-2.25993	-0.03477	-0.02586	-2.6333	-5.9699	.03280
2.482	-2.85	.02346	.10210	.22992	-0.00036	-2.23712	-0.03999	-0.02709	-2.6743	-5.9111	.02970
2.448	.702	.06302	.10175	.61936	-0.00008	-2.6133	-0.03400	-0.02600	-2.6278	-5.97810	.02653
2.432	1.863	.11642	.10277	1.13283	-0.00030	-2.6139	-0.03313	-0.02444	-2.6676	-5.9844	.02072
2.450	5.917	.20543	.10696	1.92063	.00002	-2.6164	-0.03012	-0.01969	-2.6137	-5.9532	.01247
2.462	8.029	.30034	.11216	2.67728	.00011	-2.6305	-0.02289	-0.01405	-2.6113	-6.1660	-0.1064
2.456	8.204	.39780	.12601	3.15681	-0.00020	-2.5740	-0.01167	-0.00925	-2.6103	-5.9276	-0.02736
2.457	10.261	.49746	.14799	3.36156	.00007	-2.6778	-0.00146	-0.00771	-2.6556	-5.9276	-0.06660
2.452	12.405	.60376	.17840	3.38432	-0.00012	-2.7374	.00902	.01756	-2.7581	-5.7886	-0.10638
2.460	14.503	.70869	.21542	3.29082	-0.00013	-2.7697	.02014	.01756	-2.7931	-5.9475	-0.15457
2.453	16.643	.82016	.26422	3.10405	-0.00018	-2.8940	.03085	.03032	-2.9255	-5.7938	-0.20882
2.459	18.825	.92320	.34280	2.69310	-0.00047	-3.0773	.05051	.03618	-3.1618	-5.9507	-0.24337
2.456	20.993	1.03549	.40575	2.47811	-0.00013	-3.2616	.06512	.05056	-3.2851	-5.7132	-0.29630
2.456	22.994	1.07556	.48275	2.22799	.00090	-3.7010	.07786	.06541	-3.5409	-5.4528	-0.36011
2.455	25.092	1.12026	.55372	2.02316	.00163	-4.1255	.07130	.07935	-3.8353	-5.1523	-0.38333
2.466	27.128	1.12526	.60480	1.86094	.00226	-4.2382	.08769	.07748	-3.8324	-5.1866	-0.38327
GRADIENT		.04364	.00044	.41342	.00001	-0.0048	.00075	.00117	-0.00029	.00033	-0.00297

RUN NO. 147/ 0 RN/L = 4.62 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CHEO	CPC	CPVT	CPW
4.630	-2.509	-0.6943	.10264	-6.7650	-0.00031	-2.7218	-0.03613	-0.02896	-2.7773	-5.9177	.01896
4.723	-1.329	-0.01607	.10193	-1.15770	-0.00002	-2.7302	-0.03480	-0.02899	-2.7529	-5.9884	.01987
4.769	-2.06	.03496	.10155	.34430	.00021	-2.7315	-0.03414	-0.02767	-2.6937	-5.7539	.01622
4.698	.859	.08162	.10211	.79934	-0.00045	-2.7192	-0.03287	-0.02826	-2.7965	-6.0686	.01706
4.746	1.863	.12525	.10129	1.23682	.00000	-2.7211	-0.03209	-0.02506	-2.7208	-5.9520	.01021
4.748	4.040	.22030	.10363	2.06335	-0.00013	-2.7090	-0.02966	-0.02046	-2.7319	-6.0999	.00416
4.700	6.268	.31982	.11511	2.77832	-0.00038	-2.6482	-0.02161	-0.01555	-2.7157	-5.9180	-0.1103
4.750	8.369	.41895	.13023	3.21703	.00008	-2.7085	-0.01171	-0.01123	-2.6944	-5.8224	-0.03604
4.705	10.563	.52209	.15357	3.39975	-0.00007	-2.6928	-0.01007	-0.01255	-2.7044	-6.0141	-0.07672
4.749	12.750	.62725	.18501	3.39035	-0.00007	-2.7829	.00062	.00488	-2.7385	-6.1078	-0.12299
4.736	14.920	.74425	.23028	3.23190	.00019	-2.9991	.02166	.01807	-2.9833	-5.9431	-0.17628
4.728	17.119	.85542	.28176	3.03594	-0.00089	-3.1037	.03149	.02554	-2.9466	-5.7597	-0.19472
4.801	19.381	.96353	.34674	2.77879	-0.00006	-3.1646	.04652	.03476	-3.1761	-5.4717	-0.21708
4.748	21.506	1.04893	.43356	2.40940	-0.00007	-3.5295	.06525	.05238	-3.5425	-5.4944	-0.30355
4.794	23.667	1.10180	.50780	2.16975	-0.00022	-3.6723	.06838	.06641	-3.7106	-5.5219	-0.35300
4.697	25.756	1.13958	.57254	1.99037	.00237	-4.2565	.08199	.07075	-3.8340	-5.1329	-0.38537
4.623	27.853	1.14142	.62829	1.81670	.00285	-4.46193	.07859	.06863	-4.1120	-5.4871	-0.38984
GRADIENT		.04416	.00041	.42289	.00001	-0.0038	.00094	.00132	.00049	-0.00271	-0.00241

0A17,LTPT136,OR82A,(81DC507F4G1M3)(M87E18)(V9R5)

(IZPP043) (16 OCT 73)

REFERENCE DATA

SREF = 87.1560 SQ.IN. XMRP = 13.1469 INCHES
 LREF = 19.9245 INCHES YMRP = .0000 INCHES
 BREF = 14.0502 INCHES ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 MACH = .243
 ELEVR = .000 AILRON = .000
 RUDDER = .000 BDFLAP = -14.250
 SPDBRK = 24.920

RUN NO. 148/ 0 RN/L = 10.05 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CHEC	CPC	CPVT	CPW
10.230	-2.368	-.06796	.10089	-1.67362	-.00064	-.27725	-.03854	-.02562	-.28866	-.62274	.01846
10.266	-1.374	-.01567	.09971	-1.15713	-.00012	-.27920	-.03771	-.02450	-.28133	-.59576	.01396
10.265	-.228	.03316	.09896	.33531	-.00079	-.28091	-.03666	-.02340	-.29497	-.63737	.01137
10.268	.862	.08008	.09879	.81058	-.00028	-.27759	-.03595	-.02197	-.28260	-.60703	.00709
10.263	2.066	.13136	.09982	1.31588	.00019	-.28474	-.03488	-.02021	-.28129	-.60217	.00929
10.305	4.277	.22782	.10489	2.17211	-.00008	-.27699	-.03270	-.01557	-.27844	-.59216	-.00420
10.197	6.533	.32792	.11472	2.85836	-.00072	-.28003	-.02421	-.01048	-.29279	-.63222	-.02654
10.287	8.873	.43590	.13242	3.29174	-.00016	-.27049	-.01339	-.00499	-.27336	-.61884	-.04937
10.211	11.157	.54757	.15983	3.42586	-.00095	-.27828	-.00189	.00333	-.29527	-.59117	-.11073
10.245	13.488	.66575	.19958	3.33575	-.00047	-.29416	.00879	.01476	-.30261	-.62066	-.15414
10.222	15.874	.80384	.26398	3.04508	.00022	-.32065	.02448	.02746	-.31674	-.62220	-.18065
10.184	18.194	.91443	.33237	2.75124	-.00323	-.31156	.03972	.03924	-.31562	-.61580	-.21073
10.165	20.585	1.02290	.41956	2.43800	.00037	-.34556	.05438	.05838	-.33889	-.62097	-.31427
10.145	22.902	1.10117	.49522	2.22361	.00107	-.39168	.07509	.07553	-.37255	-.57995	-.34151
10.055	24.994	1.14864	.56400	2.03662	.00076	-.40638	.06677	.08086	-.39288	-.56893	-.41340
GRADIENT		.04306	.00054	.41705	.00109	-.00015	.00085	.00145	.00142	.00373	-.00297

RUN NO. 149/ 0 RN/L = 11.45 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CHEC	CPC	CPVT	CPW
11.761	-2.612	-.06803	.10023	-.67875	-.00077	-.27957	-.03762	-.0718	-.29324	-.59803	.01311
11.781	-1.354	-.01388	.09816	-.14001	-.00023	-.28015	-.03638	-.02550	-.28420	-.61969	.00914
11.746	-.232	.03445	.09856	.34952	-.00047	-.27824	-.03517	-.02428	-.28665	-.60540	.01009
11.725	.989	.08596	.09871	.86985	.00085	-.29270	-.03465	-.02289	-.27755	-.61093	.00475
11.758	2.043	.13143	.09970	1.31829	-.00010	-.28686	-.03366	-.02125	-.28860	-.61739	.00178
11.733	4.348	.23207	.10508	2.20846	-.00044	-.27959	-.03112	-.01643	-.28746	-.61286	-.00756
11.732	6.663	.33602	.11590	2.89926	.00178	-.29466	-.02247	-.01138	-.26298	-.63625	-.02671
11.708	8.996	.44312	.13398	3.30732	-.00079	-.28167	-.01178	-.00589	-.29565	-.61152	-.04962
11.700	11.279	.55369	.16166	3.42504	.00008	-.28441	-.00010	.00179	-.28295	-.61600	-.10818
11.706	13.675	.67675	.20410	3.31571	-.00065	-.29003	.01137	.01415	-.30161	-.63478	-.15722
11.678	16.073	.81592	.27091	3.01182	-.00040	-.31269	.02644	.02684	-.31973	-.63006	-.19014
11.637	18.389	.92466	.33913	2.73658	-.00002	-.31950	.04097	.03855	-.31986	-.63540	-.21485
11.573	20.712	1.03192	.42468	2.42788	.00028	-.35075	.05563	.05780	-.34583	-.53075	-.31524
11.514	23.016	1.11131	.50286	2.20998	.00006	-.37711	.05431	.07518	-.37607	-.56520	-.35255
11.472	25.200	1.15358	.57055	2.02187	.00192	-.42365	.07001	.08003	-.38949	-.54480	-.37238
11.453	27.416	1.16438	.63036	1.84718	.00360	-.45994	.08222	.07450	-.39589	-.61110	-.42443
GRADIENT		.04305	.00065	.41682	.00106	-.00055	.00090	.00143	.00046	-.00146	-.00290

DATE 15 NOV 73

TABULATED SOURCE DATA - QM17

PAGE 105

OM17,LTPT136,OR82A,(810C507F4G1M3)(M07E18)(V5R5)

(RPP044) (16 OCT 73)

REFERENCE DATA

SRP = 87.1560 SQ. IN. XMRP = 13.1469 INCHES
 LREF = 19.9245 INCHES YMRP = .0000 INCHES
 BRP = 14.0502 INCHES ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = -5.000 MACH = .242
 ELEVTR = .000 AILRON = .000
 RUDDER = .000 BOFLAP = -14.250
 SPDRK = 24.920

RUN NO. 155/ 0 RV/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB	CHR	CHT
2.474	-2.407	-5.03469	-0.06766	.09396	.00091	.10566	-.00271	-.00183	-.00816	-.02675	-.05318
2.474	-2.218	-5.03849	.03181	.09470	-.00006	.10630	-.00319	-.00082	.04443	-.02631	-.05046
2.473	1.922	-5.03553	.12623	.09085	.00062	.10609	-.00364	-.00040	.04369	-.03043	-.04650
2.463	4.031	-5.02820	.22155	.08463	.00062	.10608	-.00394	.00066	.04334	-.03463	-.03519
2.464	6.150	-5.01156	.32105	.07627	.00066	.10681	-.00403	.00265	.04263	-.03485	-.02296
2.474	8.251	-4.99029	.41959	.06593	.00229	.10467	-.00380	.00480	.08494	-.03920	-.01036
2.504	10.413	-4.96305	.52504	.05392	.00370	.10285	-.00339	.00641	.05141	-.04142	.00763
2.500	12.534	-4.92967	.63494	.04239	.00444	.10177	-.00271	.00713	.04693	-.04455	.02914
2.468	14.654	-4.88918	.75376	.02985	.00325	.09828	-.00114	.00873	.04813	-.04557	.05073
2.468	16.900	-4.84110	.88118	.01620	.00170	.09409	.00107	.00976	.04939	-.04767	.06779
2.452	18.910	-4.79188	.99427	.01633	-.00068	.09761	-.00076	.01102	.05135	-.04518	.08769
2.442	21.020	-4.73364	1.09457	.01434	.00056	.09467	.00006	.01232	.05441	-.04967	.11395
2.500	23.126	-4.67783	1.17486	.01810	.00381	.08670	-.00228	.01706	.05939	-.04619	.13369
GRADIENT		.00130	.04487	-.00146	-.00001	.00702	-.00019	.00037	.00721	-.00120	.00271

RUN NO. 154/ 0 RV/L = 4.75 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB	CHR	CHT
4.760	-2.516	-5.07345	-.07248	.08253	-.00138	.10693	-.00221	-.00218	.04642	-.00377	-.05531
4.825	-.266	-5.07309	.03069	.09361	-.00233	.10741	-.00266	-.00186	.04601	-.02395	-.05126
4.474	1.931	-5.06501	.12807	.09003	-.00243	.10731	-.00336	-.00052	.04702	-.02563	-.04640
4.555	4.125	-5.05615	.22899	.08301	-.00300	.10736	-.00373	.00051	.04467	-.02658	-.03526
4.448	6.277	-5.04258	.32606	.07362	-.00212	.10712	-.00391	.00227	.04631	-.02960	-.02595
4.790	8.449	-5.02848	.42864	.06226	-.00099	.10563	-.00375	.00436	.04700	-.03162	-.01217
4.794	10.673	-5.00081	.53711	.04955	.00101	.10547	-.00349	.00613	.04377	-.03544	.00453
4.820	12.850	-4.96787	.65246	.03653	.00101	.10309	-.00266	.00731	.03509	-.03984	.02517
4.784	15.056	-4.92606	.77518	.02413	-.00192	.10063	-.00177	.00747	.06012	-.04315	.04940
4.764	17.306	-4.87749	.90121	.01011	-.00126	.09765	-.00042	.00862	.05082	-.04192	.06625
4.798	19.484	-4.82734	1.02497	.00692	-.00475	.09240	.00255	.01263	.05547	-.04203	.09126
4.803	21.567	-4.76550	1.11713	.01611	-.00181	.08706	.00082	.01571	.05652	-.04006	.11136
4.733	23.721	-4.69674	1.22310	.01560	-.00271	.08937	-.00070	.01941	.06064	-.04107	.13978
GRADIENT		.00244	.04528	-.00145	-.00022	.00005	-.00024	.00040	-.00028	-.00046	.00293

OA17,LTPT139,CRB2: (810C507F461M3) (M87E18) (VJRS)

(RPPD44) (16 OCT 73)

REFERENCE DATA

REF = 87.1580 SH. IN. YMRP = 13.1469 INCHES
 LREF = 19.9245 INCHES YMRP = .0000 INCHES
 BRAT = 14.0502 INCHES YMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = -5.000 MACH = .242
 ELEVT = .000 AILRON = .000
 RUDDER = .000 BDFLAP = -14.250
 SPOBRK = 24.920

RUN NO. 153/ 0 RN/L = 9.80 GRADIENT INTERVAL = -5.00/ 5.00

RA/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB	CHR	CHET
10.246	-2.585	-5.17372	-0.6766	.09121	-.00178	.10942	-.00201	-.00240	.04974	-.02854	-.05725
10.264	-2.246	-5.17715	.03728	.09196	-.00250	.10905	-.00249	-.00145	.05066	-.03003	-.05361
10.240	1.062	-5.17139	.14120	.08817	-.00346	.10851	-.00299	-.00069	.04987	-.03222	-.04840
10.223	1.358	-5.16108	.24476	.08033	-.00421	.10839	-.00345	.00020	.04707	-.03456	-.03782
10.146	3.766	-5.14161	.35466	.06920	-.00345	.10802	-.00363	.00204	.04696	-.03668	-.02725
10.094	8.916	-5.11794	.45537	.05778	-.00235	.10669	-.00352	.00431	.05031	-.03846	-.01304
10.050	11.183	-5.08805	.56865	.04572	-.00219	.10474	-.00285	.00527	.04796	-.04261	.00713
9.995	13.576	-5.05030	.70279	.03473	-.00672	.09996	-.00705	.00460	.05031	-.04602	.02924
9.930	15.908	-5.00816	.84541	.02903	-.01444	.10167	-.00173	.00766	.05111	-.04770	.05141
9.892	18.248	-4.95390	.97338	.02269	-.01584	.09973	-.00114	.01033	.05318	-.04720	.07867
9.860	20.469	-4.89705	1.07687	.02414	-.01329	.09430	-.00164	.01451	.05677	-.04400	.09706
9.796	22.728	-4.83290	1.18241	.02149	-.01101	.09672	-.00442	.01790	.05833	-.04387	.12543
9.795	25.007	-4.77145	1.26837	.01820	-.00174	.10331	-.00655	.01675	.06501	-.04616	.14462
GRADIENT		.00188	.04496	-.00157	-.00036	-.00016	-.00020	.00037	-.00039	-.00087	.00274

RUN NO. 152/ 0 RN/L = 11.54 GRADIENT INTERVAL = -5.00/ 5.00

RA/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB	CHR	CHET
11.798	-2.580	-5.18419	-0.6643	.09002	-.00189	.10958	-.00196	-.00238	.04906	-.02796	-.05742
11.830	-2.234	-5.18890	.03850	.09100	-.00277	.10963	-.00150	-.00150	.04809	-.02926	-.05366
11.813	2.116	-5.18383	.14354	.08746	-.00360	.10947	-.00302	-.00074	.04983	-.03185	-.04832
11.817	4.421	-5.17361	.24807	.07941	-.00429	.10893	-.00343	.00024	.04827	-.03467	-.03796
11.759	6.732	-5.15437	.35398	.06891	-.00363	.10836	-.00364	.00206	.04764	-.03638	-.02751
11.833	9.110	-5.13357	.46349	.05635	-.00303	.10737	-.00352	.00431	.04585	-.03933	-.01207
11.778	11.721	-5.10119	.58607	.04382	-.00253	.10511	-.00276	.00521	.04707	-.04316	.01007
11.841	13.814	-5.06916	.71691	.03374	-.00742	.10157	-.00085	.00451	.05027	-.04677	.03094
11.822	16.221	-5.02875	.86526	.02939	-.01568	.10502	-.00301	.00767	.04921	-.04789	.05391
11.751	18.497	-4.97946	.98830	.02277	-.01690	.10152	-.00165	.01041	.05206	-.04752	.07889
11.706	20.814	-4.91334	1.09559	.02334	-.01353	.09526	-.00205	.01488	.05823	-.04418	.10004
11.624	23.095	-4.84874	1.20227	.02101	-.01124	.09791	-.00474	.01818	.06155	-.04346	.12771
11.540	25.411	-4.78237	1.29069	.01712	-.00272	.10342	-.00667	.01763	.06546	-.04595	.14719
GRADIENT		.00155	.04490	-.00151	-.00034	-.00009	-.00021	.00037	-.00003	-.00097	.00273

OA17, L1PT138, CRB2A, (B1DC507F4G1M3) (W8TE18) (V5R3)

(ZPP044) (18 OCT 73)

REFERENCE DATA

SRP = 87.1560 SQ. IN. XMRP = 13.1469 INCHES
 LRLP = 19.9245 INCHES YMRP = .0000 INCHES
 BRP = 14.0502 INCHES ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = -5.000 MACH = .842
 ELEVR = .000 AILRON = .000
 RUDDER = .000 BDFLAP = -14.250
 SPDBRK = 24.920

I UN NO. 133/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CHEO	CPC	CPVT	CPW
2.474	-2.407	-.06385	.09675	-.66003	-.01697	.05039	-.02715	-.02604	-.25163	-.18244	-.18113
2.474	-.216	.03217	.09456	.34016	.00056	-.27429	-.02529	-.02559	-.26437	-.55875	.03253
2.473	1.922	.12311	.09513	1.29409	.00044	-.26972	-.02356	-.02293	-.26183	-.54353	.02633
2.463	4.031	.21505	.09999	2.13070	.00035	-.26755	-.01727	-.01793	-.26126	-.59977	-.03680
2.464	6.150	.31103	.11023	2.82168	.00100	-.26315	-.00955	-.01342	-.24536	-.50343	.01016
2.474	8.291	.40579	.12546	3.23447	.01151	-.52435	-.00358	-.00978	-.31961	-.77815	-.33962
2.504	10.413	.50664	.14793	3.42496	.00341	-.31740	.00952	-.00189	-.25674	-.53270	-.07494
2.500	12.534	.61061	.17917	3.40797	.00044	-.28970	.01667	.01047	-.26188	-.54323	-.10067
2.469	14.654	.72166	.21966	3.28531	.00104	-.29716	.02726	.02347	-.27682	-.53659	-.13950
2.466	16.800	.83641	.27166	3.08626	.00136	-.30469	.03766	.02993	-.28064	-.53465	-.17390
2.452	18.910	.93531	.33766	2.76982	.00129	-.31179	.03071	.03698	-.29408	-.53041	-.21935
2.442	21.020	1.01659	.40600	2.50393	.00154	-.33591	.06417	.04978	-.30847	-.50707	-.29926
2.500	23.126	1.07336	.47806	2.24513	.00166	-.36667	.07478	.05891	-.33673	-.55817	-.36110
GRADIENT		.04324	.00047	.43759	.00243	-.04454	.00146	.00125	-.00124	-.05793	.02012

RUN NO. 154/ 0 RN/L = 4.73 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CHEO	CPC	CPVT	CPW
4.760	-2.516	.06635	.09562	-.71475	.00144	-.18637	-.03064	-.02467	-.26094	-.62011	.01441
4.629	-.266	.03133	.09346	.33722	.00173	-.19639	-.02650	-.02276	-.26564	-.59871	.01775
4.174	1.931	.12497	.09430	1.32524	.00109	-.19128	-.02624	-.02016	-.27112	-.54827	.01649
4.555	4.123	.22233	.09925	2.24006	.00017	-.27575	-.02005	-.01523	-.27267	-.54728	.00540
4.548	6.277	.31607	.10863	2.90418	.00111	-.26587	-.01423	-.01172	-.26619	-.52004	-.01449
4.790	8.449	.41484	.12457	3.33077	.00072	-.29018	-.00466	-.00732	-.27739	-.52249	-.03633
4.794	10.673	.51864	.14816	3.50053	-.00409	-.27020	.00349	.00103	-.34298	-.54923	-.01436
4.820	12.850	.62600	.18072	3.47488	.00322	-.34010	.01261	.01255	-.26272	-.71418	-.23710
4.784	15.036	.74237	.22443	3.30784	.01044	-.49462	.02366	.02554	-.30865	-.76834	-.36461
4.764	17.306	.85740	.27774	3.08703	-.00012	-.31231	.03464	.03161	-.31460	-.56402	-.20635
4.796	19.484	.96397	.34840	2.76687	.00192	-.34243	.04794	.04332	-.30823	-.51695	-.23491
4.803	21.567	1.03300	.42561	2.42707	.00068	-.34684	.05902	.05636	-.33683	-.53884	-.31148
4.733	23.721	1.11349	.50631	2.19922	.00124	-.37559	.07200	.06777	-.35354	-.55662	-.36787
GRADIENT		.04366	.00053	.44564	-.00020	.00173	.00154	.00140	-.00184	.01244	-.00116

CA17,LTPT135,CR82A,(B10C5D7F4G1M3)(M07E18)(V5R5)

(ZPP044) (16 OCT 75)

REFERENCE DATA

SREF = 87.1560 SQ. IN. YMRP = 13.1469 INCHES
 LREF = 19.9245 INCHES YMRP = .0000 INCHES
 BREF = 14.0502 INCHES ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = -5.000 MACH = .242
 ELEVIR = .000 AIRRON = .000
 RUDDER = .000 BOPFLAP = -14.250
 SPDRK = 24.920

RUN NO. 153/ 0 RN/L = 9.80 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CHEO	CPC	CPVT	CPW
10.246	-2.585	-.06348	.08417	-.67410	.00195	-.30706	-.03204	-.02521	-.27234	-.56817	.01292
10.264	-.248	.03768	.09182	.41036	.00173	-.31396	-.03027	-.02334	-.26317	-.59049	.00035
10.240	2.082	.13791	.09324	1.47908	.00132	-.30743	-.02794	-.02046	-.28393	-.61575	-.00106
10.223	4.358	.23794	.09669	2.41100	.00001	-.29081	-.02189	-.01593	-.29049	-.58651	-.00476
10.146	6.766	.34403	.11051	3.11330	.00016	-.29005	-.01558	-.01168	-.28680	-.55585	-.01595
10.094	8.916	.44092	.12766	3.45389	.00119	-.31193	-.00714	-.00569	-.29061	-.57676	-.03604
10.050	11.183	.54899	.15513	3.53682	.00026	-.29621	.00235	.00478	-.29163	-.56018	-.07500
9.999	13.576	.67501	.19872	3.59674	.00098	-.31180	.01291	.01633	-.29428	-.59114	-.13636
9.970	15.908	.80508	.25964	3.10175	.00020	-.31555	.02352	.02768	-.31201	-.57455	-.20591
9.892	18.248	.91733	.32634	2.81098	.00101	-.32828	.03617	.04050	-.31025	-.55646	-.22680
9.860	20.469	1.00043	.39920	2.50607	.00067	-.35046	.04411	.03295	-.33495	-.60186	-.30993
9.796	22.728	1.08229	.47664	2.27087	.00049	-.36012	.06181	.06363	-.35149	-.67509	-.32491
9.795	25.007	1.14177	.55267	2.06592	.00188	-.40630	.07263	.07218	-.37293	-.56614	-.36372
GRADIENT		.04337	.00064	.44587	-.00027	.00240	.00141	.00132	-.01238	-.00090	-.00235

RUN NO. 152/ 0 RN/L = 11.54 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CHEO	CPC	CPVT	CPW
11.798	-2.580	-.06231	.09292	-.67058	.00206	-.30298	-.03226	-.02516	-.26632	-.60873	.00970
11.830	-.234	.03687	.09084	.42792	.00169	-.29690	-.03030	-.02336	-.26690	-.61541	.01041
11.816	2.116	.14021	.09270	1.51244	.00105	-.30765	-.02781	-.02052	-.28894	-.58709	.00056
11.937	4.421	.24121	.09830	2.45391	.00064	-.29799	-.02163	-.01632	-.28856	-.58045	-.00931
11.759	6.732	.34346	.10993	3.12452	.00071	-.29412	-.01526	-.01223	-.28152	-.52882	-.01883
11.833	9.110	.45070	.12935	3.48440	-.00022	-.28303	-.00637	-.00573	-.28691	-.53351	-.04020
11.778	11.521	.56555	.15979	3.53935	.00016	-.29060	.00369	.00637	-.28769	-.57339	-.07771
11.641	13.814	.66812	.20394	3.37407	.00082	-.31033	.01372	.01722	-.29572	-.60518	-.14389
11.822	16.221	.82261	.26992	3.04756	.00179	-.30381	.02463	.02928	-.28081	-.62806	-.21210
11.751	18.497	.93001	.33314	2.77496	-.00464	-.19795	.03705	.04184	-.28409	-.57085	-.20611
11.706	20.814	1.01573	.41130	2.46334	.00096	-.35950	.04553	.03451	-.34247	-.56902	-.30124
11.624	23.095	1.09767	.49092	2.23595	.00103	-.37999	.06321	.06450	-.36166	-.61759	-.34151
11.940	25.411	1.15647	.56931	2.03486	.00245	-.40441	.07369	.07349	-.38054	-.54982	-.37819
GRADIENT		.04335	.00077	.44768	-.00021	.00018	.00147	.00126	-.00355	-.00485	-.00286

DATE 15 NOV 73

TABULATED SOURCE DATA - OA17

PAGE 109

OA17, LPT1138, OR82A, (810C507F4 NS) (M07E18) (VSR5)

(RPPOAS) (16 OCT 73)

REFERENCE DATA

PARAMETRIC DATA

SRZF = 87.1560 84.1N. XMRP = 13.1469 INCHES
 LREF = 13.8245 INCHES YMRP = .0000 INCHES
 BRZF = 14.0502 INCHES ZMRP = 6.0000 INCHES
 SCALE = .0190 SCALE

BETA = -5.000 MACH = .252
 ELEVTR = .000 AILRON = .000
 RUDDER = .000 SOFLAP = -14.250
 SPDRNK = 24.920

RUN NO. 156/ 0 RV/L = 4.71 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB	CHR	CHT
4.732	-2.491	-5.05905	-.07064	.06469	.00363	.06851	-.00407	-.00286	.04907	-.03603	-.06024
4.705	-2.218	-5.06126	.03367	.06589	.00236	.06609	-.00435	-.00170	.04367	-.03716	-.05748
4.735	1.923	-5.05980	.13001	.06255	.00183	.06915	-.00468	-.00071	.04568	-.04025	-.05377
4.790	4.108	-5.05188	.22996	.05594	.00184	.09058	-.00304	.00032	.04650	-.04268	-.04408
4.733	6.377	-5.05562	.33558	.04574	.00163	.09112	-.00541	.00206	.04772	-.04528	-.03268
4.695	8.423	-5.01390	.43217	.03422	.00250	.09325	-.00543	.00412	.04124	-.04803	-.01838
4.733	10.651	-4.96674	.54008	.02054	.00408	.08684	-.00483	.00358	.04254	-.03102	-.00098
4.723	12.822	-4.92292	.65042	.00540	.00334	.06740	-.00418	.00663	.04710	-.05399	-.01082
4.714	15.045	-4.91254	.77026	-.00507	.00367	.06499	-.00273	.00737	.04641	-.05696	.03092
4.721	17.329	-4.86324	.90535	-.01828	-.00239	.07684	.00183	.01037	.04754	-.05642	.05080
4.782	19.454	-4.81498	1.01486	-.0083	-.01017	.06824	.00592	.02031	.04989	-.05539	.10421
4.730	21.642	-4.75831	1.16439	-.00414	-.02335	.07895	.00203	.01563	.05964	-.05972	.12340
4.714	23.735	-4.70080	1.28095	-.00499	-.02834	.08807	-.00130	.00753	.05892	-.06446	.14204
GRADIENT		.00091	.04553	-.00134	-.00030	.00030	-.00015	.00048	-.00026	-.00105	.00237

RUN NO. 157/ 0 RV/L = 9.96 GRADIENT INTERVAL = -5.00/ 5.00

RV/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAB	CHR	CHT
10.309	-2.432	-5.13992	-.07121	.06355	.00343	.09338	-.00433	-.00254	.04814	-.03056	-.06082
10.183	-2.264	-5.14282	.02643	.06499	.00365	.09332	-.00435	-.00159	.04777	-.03014	-.05768
10.224	2.186	-5.14011	.13551	.06082	.00407	.09314	-.00510	-.00026	.04506	-.03464	-.05319
10.207	4.182	-5.13178	.24013	.05361	.00299	.09630	-.00548	.00082	.04310	-.03738	-.04222
10.182	6.729	-5.11566	.34465	.04276	.00366	.09643	-.00568	.00252	.04753	-.03943	-.03201
10.143	9.022	-5.09158	.45357	.02922	.00419	.09317	-.00550	.00481	.04564	-.04188	-.01671
10.179	11.462	-5.06383	.57369	.01434	.00534	.09451	-.00496	.00547	.04555	-.04535	.00009
10.159	13.732	-5.02924	.69766	.00124	.00319	.08998	-.00209	.00562	.04684	-.04878	.01632
10.118	16.064	-4.98931	.82668	-.00421	-.00207	.08331	.00165	.00684	.04748	-.04977	.04282
10.085	18.288	-4.93927	.94119	.01087	-.00998	.06334	-.00098	.01655	.03234	-.04667	.08889
10.043	20.768	-4.88828	1.06632	.01340	-.02084	.09381	-.00288	.05985	.05416	-.05104	.11134
9.980	23.045	-4.83486	1.24988	.00600	-.03246	.08597	-.00328	.00546	.05635	-.05314	.13407
GRADIENT		.00117	.04515	-.00148	-.00031	.00046	-.00018	.00048	-.00052	-.00109	.00261

0A17,LTPT136,ORB2A,(B10C5D7F4 M3) (M07E18) (VSR5)

(ZPPO45) (16 OCT 73)

REFERENCE DATA

SREF = 87.1560 36 IN. YMRP = 13.1469 INCHES
 LREF = 19.9245 INCHES YMRP = .0000 INCHES
 BREF = 14.0502 INCHES ZMRP = 6.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = -5.000 MACH = .252
 ELEVTR = .000 ALLRON = .000
 RUDDER = .000 BDFLAP = -14.250
 SPDRK = 24.920

RUN NO. 156/ 0 RN/L = 4.71 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CHEO	CPC	CPVT	CPW
4.732	-2.491	-.06796	.08771	-1.00375	.00205	-.30252	-.03214	-.02810	-.26606	-.60558	-.01990
4.705	-.218	.03392	.06576	.51568	.00015	-.26956	-.03062	-.02666	-.26697	-.56374	.02156
4.735	1.923	.12784	.06674	1.91143	.00195	-.26202	-.02684	-.02493	-.24725	-.55514	.02443
4.750	4.108	.22556	.07227	3.11820	.00283	-.26704	-.02331	-.02077	-.23861	-.53046	.00612
4.733	6.377	.32643	.08273	3.97508	.00232	-.29462	-.01616	-.01647	-.25326	-.52331	-.03211
4.695	8.423	.42249	.09716	4.34655	.00008	-.25459	-.00790	-.01046	-.25311	-.49407	-.01217
4.733	10.651	.52897	.12000	4.39132	.00004	-.26263	-.00482	-.00016	-.26165	-.49407	-.03412
4.723	12.622	.63300	.14962	4.23086	.00102	-.29074	.00325	.00737	-.27263	-.55373	-.11208
4.714	15.045	.74821	.19116	3.90325	.00075	-.28653	.01181	.01911	-.27137	-.55990	-.17992
4.721	17.329	.86910	.25412	3.41999	.00068	-.29346	.02510	.02510	-.26147	-.55217	-.20732
4.762	19.454	.95971	.33010	2.90728	.00060	-.31803	.05518	.04904	-.29732	-.49145	-.24447
4.730	21.642	1.08364	.42558	2.54671	.00066	-.36817	.05968	.06372	-.35637	-.52578	-.41734
4.714	23.735	1.17460	.51103	2.29850	.00173	-.36376	.05922	.06262	-.33301	-.47929	-.41108
	GRADIENT	.04439	.00067	.62746	.00018	.00160	.00129	.00109	.00491	.01070	.00375

RUN NO. 157/ 0 RN/L = 9.96 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	CL	CD	L/D	CAC	CPB	CHEI	CHEO	CPC	CPVT	CPW
10.309	-2.432	-.06845	.06651	-1.02921	.00206	-.29722	-.03354	-.02526	-.26051	-.57075	.00441
10.163	-.264	.02673	.06467	.41212	.00168	-.29492	-.03510	-.02259	-.26504	-.55071	.01018
10.824	2.166	.13308	.06604	2.01510	.00072	-.27820	-.03236	-.02081	-.26534	-.55743	.00971
10.207	4.492	.23525	.07209	2.26332	.00011	-.27644	-.02615	-.01607	-.27643	-.56856	.00044
10.162	6.729	.33727	.08284	4.07107	.00098	-.29345	-.01997	-.01204	-.27596	-.53277	-.01364
10.143	9.022	.44333	.10029	4.42070	.00048	-.28176	-.01216	-.00465	-.27324	-.54545	-.03966
10.179	11.462	.55960	.12810	4.36861	.00005	-.28122	-.00637	-.00646	-.28035	-.53614	-.07774
10.159	13.752	.67737	.16706	4.05468	.00100	-.28919	.00326	.01308	-.27136	-.56417	-.13691
10.118	16.064	.79741	.22554	3.53561	.00046	-.29313	.01573	.02709	-.28487	-.56875	-.17596
10.085	18.288	.89030	.30547	2.91452	.00134	-.32309	.03921	.04769	-.29925	-.56345	-.27263
10.043	20.768	1.01064	.39809	2.55926	.00129	-.33436	.04836	.07296	-.33930	-.51114	-.41495
9.980	23.045	1.14779	.49480	2.31969	-.00026	-.34790	.04985	.06122	-.35245	-.52064	-.45958
	GRADIENT	.04404	.00076	.62677	-.00030	.00319	.00134	.00127	-.00207	-.00003	-.00057

DATE 15 NOV 73

TABULATED SOURCE DATA - OA17

PAGE 111

OA17,LTPT138,OR82A,(B10C507F4 M3) (NOTE18) (VSR5)

(RPP046) (16 OCT 73)

REFERENCE DATA

SRZF = 87.1560 84. IN. XRRP = 13.1466 INCHES
 LRZF = 19.9245 INCHES YRRP = .0000 INCHES
 SRZF = 14.0502 INCHES ZRRP = 6.0000 INCHES
 SCALE = .0150 SCALE

BETA =
 ELEVR =
 RUDDER =
 SPDRK =

-5.000 MACH = .283
 .000 AILRON = .000
 .000 BOFLAP = -14.250
 54.920

PARAMETRIC DATA

RUN NO. 156/ 0 RN/L = 1.65 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CAS	CHR	CHET
1.685	-2.371	-5.02457	-0.09774	.09366	.02977	.09167	-0.00401	-0.00281	.03216	-0.02445	-0.05867
1.689	-1.193	-5.02659	.00697	.09330	.02867	.09224	-0.00412	-0.00134	.05642	-0.02220	-0.05936
1.687	1.955	-5.02612	.09966	.09246	.03145	.09359	-0.00437	-0.00117	.05226	-0.02202	-0.05366
1.682	4.171	-5.01645	.20242	.08597	.03007	.09417	-0.00466	.00042	.04696	-0.02412	-0.04447
1.665	6.160	-5.00173	.29955	.07897	.02945	.09519	-0.00478	.00233	.05216	-0.02573	-0.03095
1.667	6.276	-4.98094	.39960	.06469	.02955	.09383	-0.00467	.00466	.05256	-0.02743	-0.01804
1.912	10.510	-4.95257	.50967	.05097	.03106	.09207	-0.00403	.00680	.04945	-0.03356	.00203
1.907	12.624	-4.91897	.61876	.03761	.03244	.09037	-0.00267	.00778	.05049	-0.03642	.01738
1.905	14.654	-4.88127	.73756	.02678	.02905	.08907	-0.0027	.00865	.04711	-0.04961	.03910
1.896	16.800	-4.82484	.86022	.03609	.02666	.08707	-0.00297	.00908	.05255	-0.05642	.06310
1.890	18.926	-4.78312	.97507	.04500	.01506	.09083	-0.00244	.00713	.05377	-0.05619	.09729
1.873	21.026	-4.72572	1.11090	.04606	.00169	.09171	-0.00335	.00900	.05682	-0.05000	.12397
1.854	23.245	-4.65827	1.23457	.03932	.00248	.08695	-0.00224	.01046	.06356	-0.04137	.14197
GRADIENT	.00124	.04561	.00119	.00016	.00016	.00036	-0.00010	.00045	-0.00064	.00005	.00224

OA17,LTPT138,OR82A,(B10C507F4 M3) (NOTE18) (VSR5)

(ZPPO46) (16 OCT 73)

REFERENCE DATA

SRZF = 87.1560 84. IN. XRRP = 13.1466 INCHES
 LRZF = 19.9245 INCHES YRRP = .0000 INCHES
 SRZF = 14.0502 INCHES ZRRP = 6.0000 INCHES
 SCALE = .0150 SCALE

BETA =
 ELEVR =
 RUDDER =
 SPDRK =

-5.000 MACH = .283
 .000 AILRON = .000
 .000 BOFLAP = -14.250
 54.920

PARAMETRIC DATA

RUN NO. 156/ 0 RN/L = 1.65 GRADIENT INTERVAL = -5.00/ 5.00

RN/L	ALPHA	BETA	CN	CA	CLM	CY	CYN	CBL	CPC	CPVT	CPW
1.685	-2.371	-0.93378	.09763	-0.96080	.00119	.03166	-0.03107	-0.02760	-0.30073	-0.63934	.01335
1.689	-1.193	.00729	.09526	.07649	.00211	.03456	-0.03094	-0.02842	-0.31205	-0.70965	-0.00521
1.687	1.955	.09645	.09561	1.00672	.00096	.03274	-0.02630	-0.02456	-0.30323	-0.69669	-0.00291
1.682	4.171	.19563	.10047	1.94719	.00070	.03025	-0.02417	-0.02150	-0.28966	-0.71807	-0.00462
1.665	6.160	.26932	.10976	2.66191	.00106	.03216	-0.01646	-0.01449	-0.30325	-0.70741	-0.01682
1.667	6.276	.36632	.12158	3.17756	.00071	.03245	-0.00894	-0.00910	-0.31176	-0.68213	-0.05091
1.912	10.510	.49183	.14308	3.43740	.00036	.03026	-0.00061	.00142	-0.29856	-0.70142	-0.06329
1.907	12.624	.59556	.17213	3.45991	.00093	.03166	.00829	.00909	-0.29515	-0.68427	-0.11063
1.905	14.654	.70629	.21443	3.29364	.00019	.03084	.01928	.01982	-0.28740	-0.71515	-0.12070
1.896	16.800	.81250	.26509	2.64996	.00078	.03243	.03161	.03129	-0.31057	-0.76263	-0.24035
1.890	18.926	.90567	.32619	2.52904	.00047	.03193	.04866	.04842	-0.32363	-0.76370	-0.33261
1.873	21.026	1.02041	.44159	2.31078	.00046	.03612	.05917	.06479	-0.35489	-0.74924	-0.37495
1.854	23.245	1.11664	.52336	2.13763	.00199	.03252	.06429	.07766	-0.33703	-0.74290	-0.40372
GRADIENT	.04397	.00042	.00042	.44332	.00012	.00394	.00103	.00121	.00162	-0.01012	-0.00236